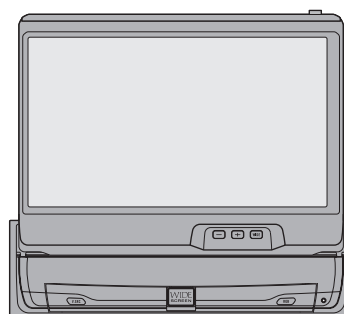


Service Manual

Pioneer



ORDER NO.
CRT2671

7 INCH WIDE AV SYSTEM DISPLAY

AVX-7300

AVX-7300

EW

AVX-7300

ES

UC

NOTE:

- Inverter for LCD back light becomes a high voltage.
- About FPC between control PCB and relay unit.

There is a direction of the connector and the installation is noted.

Please note that the length of the line is short at the time of detaching.

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PIONEER CORPORATION 4-1, Meguro 1-Chome, Meguro-ku, Tokyo 153-8654, Japan
PIONEER ELECTRONICS SERVICE INC. P.O.Box 1760, Long Beach, CA 90801-1760 U.S.A.
PIONEER ELECTRONIC NV Haven 1087 Keetberglaan 1, 9120 Melsele, Belgium
PIONEER ELECTRONICS ASIACENTRE PTE.LTD. 253 Alexandra Road, #04-01, Singapore 159936

1. SAFETY INFORMATION

CAUTION

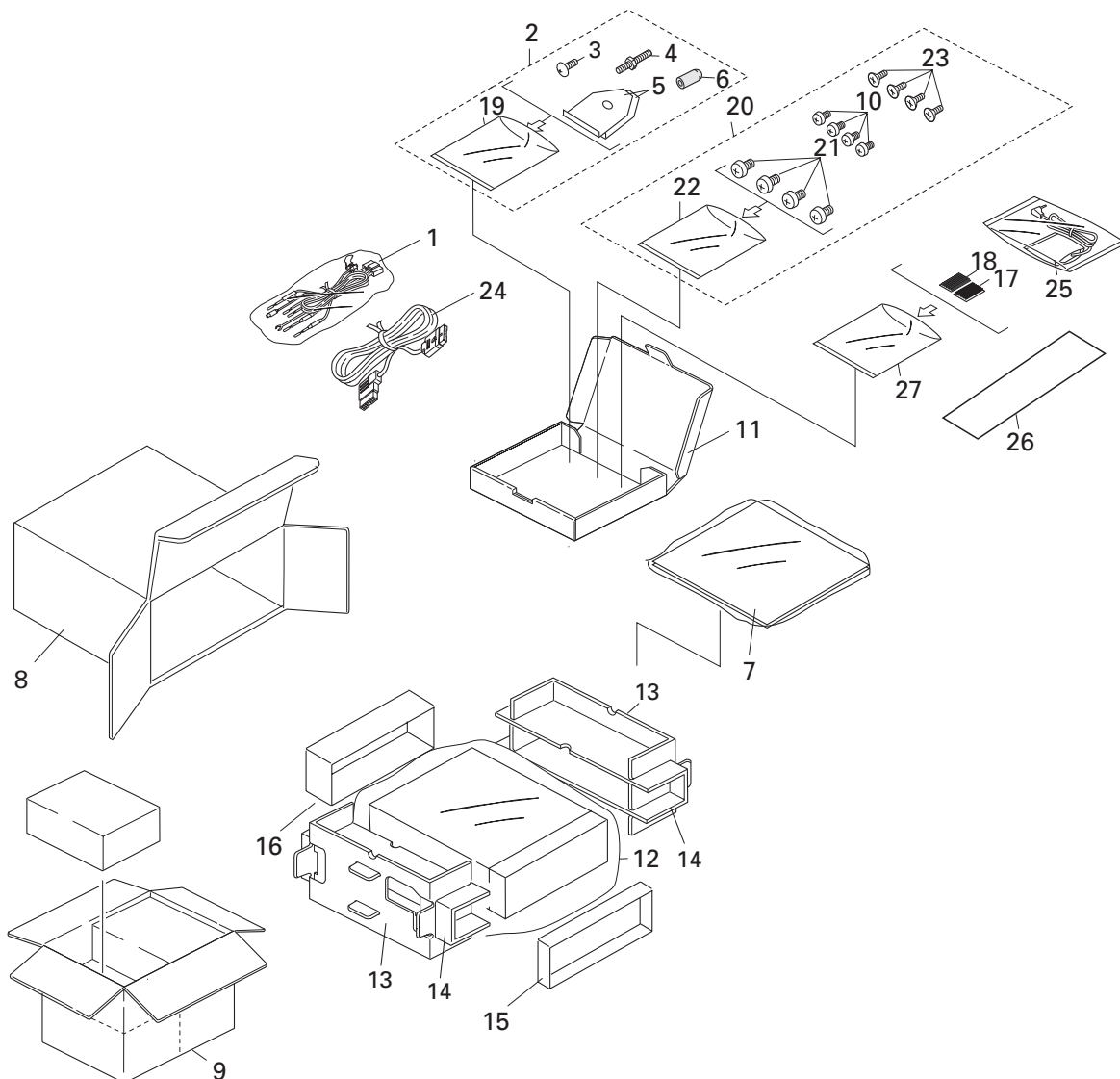
This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.
Health & Safety Code Section 25249.6 - Proposition 65

2. EXPLODED VIEWS AND PARTS LIST

2.1 PACKING



NOTE:

- Parts marked by “*” are generally unavailable because they are not in our Master Spare Parts List.
- Screws adjacent to ∇ mark on the product are used for disassembly.

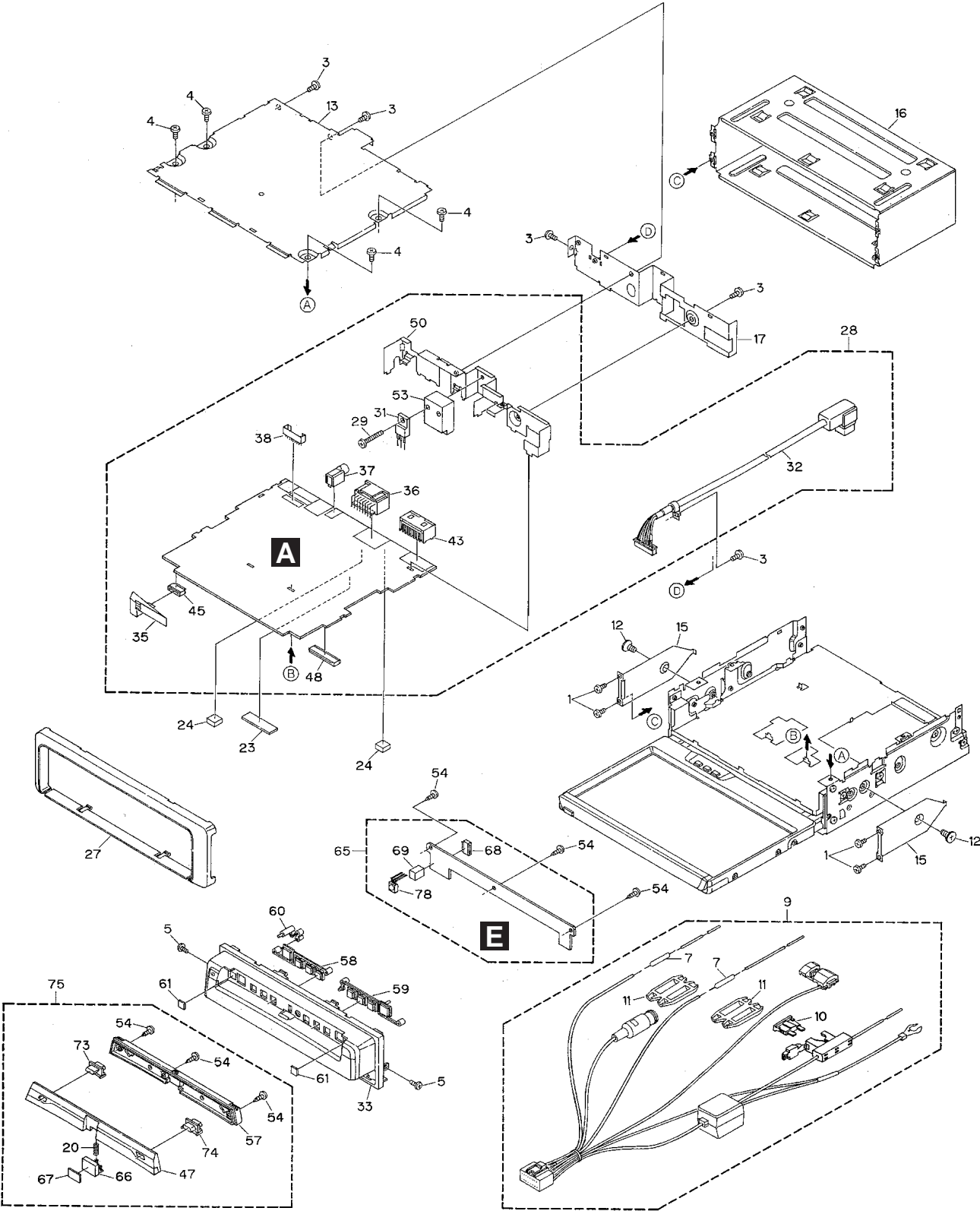
● PACKING SECTION PARTS LIST

Mark No.	Description	Part No.		
		AVX-7300/UC	AVX-7300/EW	AVX-7300/ES
1	Cord	CDE6573	CDE6573	CDE6573
2	Accessory Assy	CEA2876	CEA2876	CEA2876
3	Screw	BPZ20P060FMC	BPZ20P060FMC	BPZ20P060FMC
4	Screw	CBA1002	CBA1002	CBA1002
5	Bracket	CNC9383	CNC9383	CNC9383
6	Bush	CNV1917	CNV1917	CNV1917
7-1	Polyethylene Bag	CEG1116	CEG1116	CEG1116
7-2	Owner's Manual	CRB1741	CRB1741	CRB1741
7-3	Owner's Manual	CRB1742	CRB1715	CRB1715
7-4	Owner's Manual	Not used	CRB1716	CRB1720
7-5	Owner's Manual	Not used	CRB1742	CRB1721
7-6	Owner's Manual	Not used	CRB1718	Not used
7-7	Owner's Manual	Not used	CRB1719	Not used
7-8	Installation Manual	CRD3482	CRD3481	CRD3483
* 7-9	Card	ARY1048	Not used	Not used
* 7-10	Warranty Card	Not used	CRY1157	Not used
8	Carton	CHG4405	CHG4407	CHG4406
9	Contain Box	CHL4405	CHL4407	CHL4406
10	Screw(M4x3)	CBA1468	CBA1468	CBA1468
11	Sub Box	CHA3172	CHA3172	CHA3172
12	Polyethylene Bag	CEG1173	CEG-162	CEG-162
13	Protector	CHP2445	CHP2445	CHP2445
14	Protector	CHP2446	CHP2446	CHP2446
15	Protector	CHP2385	CHP2385	CHP2385
16	Protector	CHP2386	CHP2386	CHP2386
* 17	Fastener	CNM6544	CNM6544	Not used
* 18	Fastener	CNM6545	CNM6545	Not used
* 19	Polyethylene Bag	E36-615	E36-615	E36-615
20	Screw Assy	CEA2927	CEA2927	CEA2927
21	Screw	BMZ50P060FMC	BMZ50P060FMC	BMZ50P060FMC
* 22	Polyethylene Sheet	CNM4338	CNM4338	CNM4338
23	Screw	CMZ50P060FMC	CMZ50P060FMC	CMZ50P060FMC
24	Cord	CDE6570	CDE6570	CDE6570
25	Speaker Unit	CXB6699	CXB6699	Not used
26	Sheet	CNM7244	CNM7244	CNM7244
27	Polyethylene Bag	CEG1116	CEG1116	Not used

● Owner's Manual and Installation Manual

Part No.	Language
CRB1741	English
CRB1715	Spanish
CRB1716	German
CRB1742	French
CRB1718	Italian
CRB1719	Dutch
CRB1720	Arabic
CRB1721	Portuguese(B)
CRD3482	English,French
CRD3481	English,Spanish,Dutch,German,French,Italian
CRD3483	English,Spanish,Arabic,Portuguese(B)

2.2 EXTERIOR(1/3)



(1) EXTERIOR(1/3) SECTION PARTS LIST

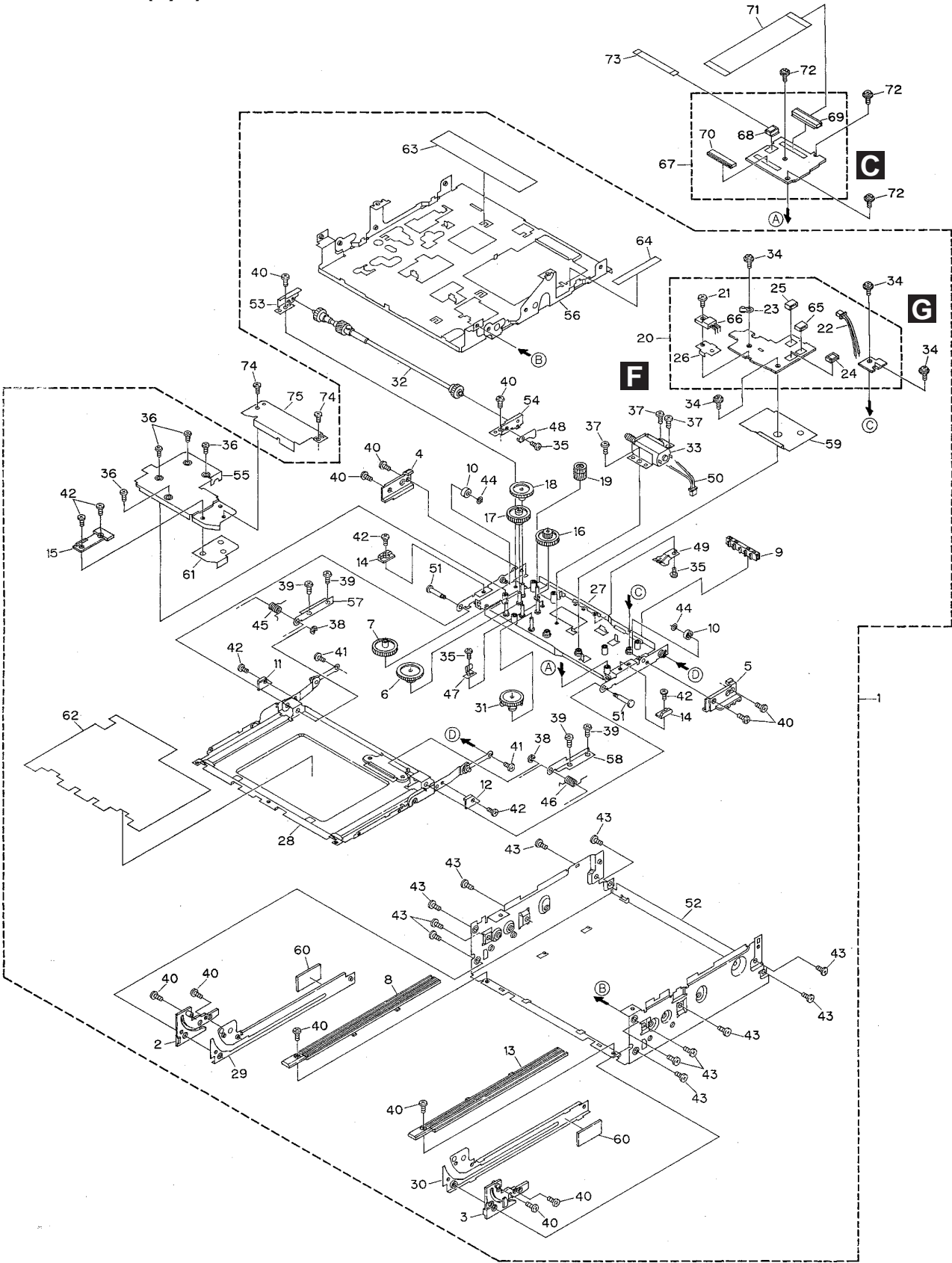
Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Screw	BMZ20P030FZK	34	.....
2	.....		35	Cable	CDE6575
3	Screw	BMZ26P040FMC	36	Plug(CN401)	CKM1187
4	Screw	BSZ26P050FMC	37	Jack(CN202)	See Contrast table(2)
5	Screw(M1.7x3)	CBA1475	38	Plug(CN402)	CKS-790
6	.....		39-42	.....
7	Resistor	RS1/2P102JL	43	Connector(CN201)	CKS3645
8	.....		44	.....
9	Cord	CDE6573	45	Connector(CN651)	CKS3970
10	Fuse(4A)	CEK1001	46	.....
11	Cap	CNS1472	47	Grille Unit	See Contrast table(2)
12	Screw	CMZ50P060FMC	48	Connector(CN101)	CKS4495
13	Case	CNB2703	49	.....
14	.....		50	Bracket	CNC9371
15	Bracket	CNC9389	51,52	.....
16	Holder	CNC9510	53	Heat Sink	CNR1609
17	Panel	See Contrast table(2)	54	Screw	BPZ20P060FMC
18,19	.....		55,56	.....
20	Spring	CBH2479	57	Cover	CNS6570
21,22	.....		58	Button	CAC6992
23	Spacer	CNM7465	59	Button	CAC6993
24	Spacer	CNM7466	60	Button	CAC6997
25,26	.....		* 61	Cushion	CNM6270
27	Panel	See Contrast table(2)	62-64	.....
28	Control Unit	See Contrast table(2)	65	Keyboard Unit	See Contrast table(2)
29	Screw	BMZ26P200FMC	66	Button	See Contrast table(2)
30	.....		* 67	Badge	CAH1786
31	Transistor(Q33)	2SD2396	68	Connector(CN1901)	CKS4511
32	Cord	CDE6568	69	Spacer	CNM7247
33	Grille Unit	See Contrast table(2)	70-72	.....
			73	Button(RGB)	CAC7004
			74	Button(V.SRC)	CAC7010
			75	Detach Grille Assy	See Contrast table(2)
			76,77	.....
			78	IC(IC1901)	TSOP1840SB1

(2) CONTRAST TABLE

AVX-7300/UC , AVX-7300/EW and AVX-7300/ES are constructed the same except for the following:

Mark No.	Description	Part No.		
		AVX-7300/UC	AVX-7300/EW	AVX-7300/ES
17	Panel	CNC9691	CNC9691	CNC9704
27	Panel	CNS6571	CNS6571	CNS6627
28	Control Unit	CWM7742	CWM7741	CWM7743
33	Grille Unit	CXB7281	CXB7281	CXB7282
37	Jack(CN202)	CKN1027	CKN1027	Not used
47	Grille Unit	CXB7286	CXB7286	CXB7287
65	Keyboard Unit	CWM7747	CWM7746	CWM7747
66	Button	CAC6994	CAC6994	CAC7011
75	Detach Grille Assy	CXB7126	CXB7126	CXB7127

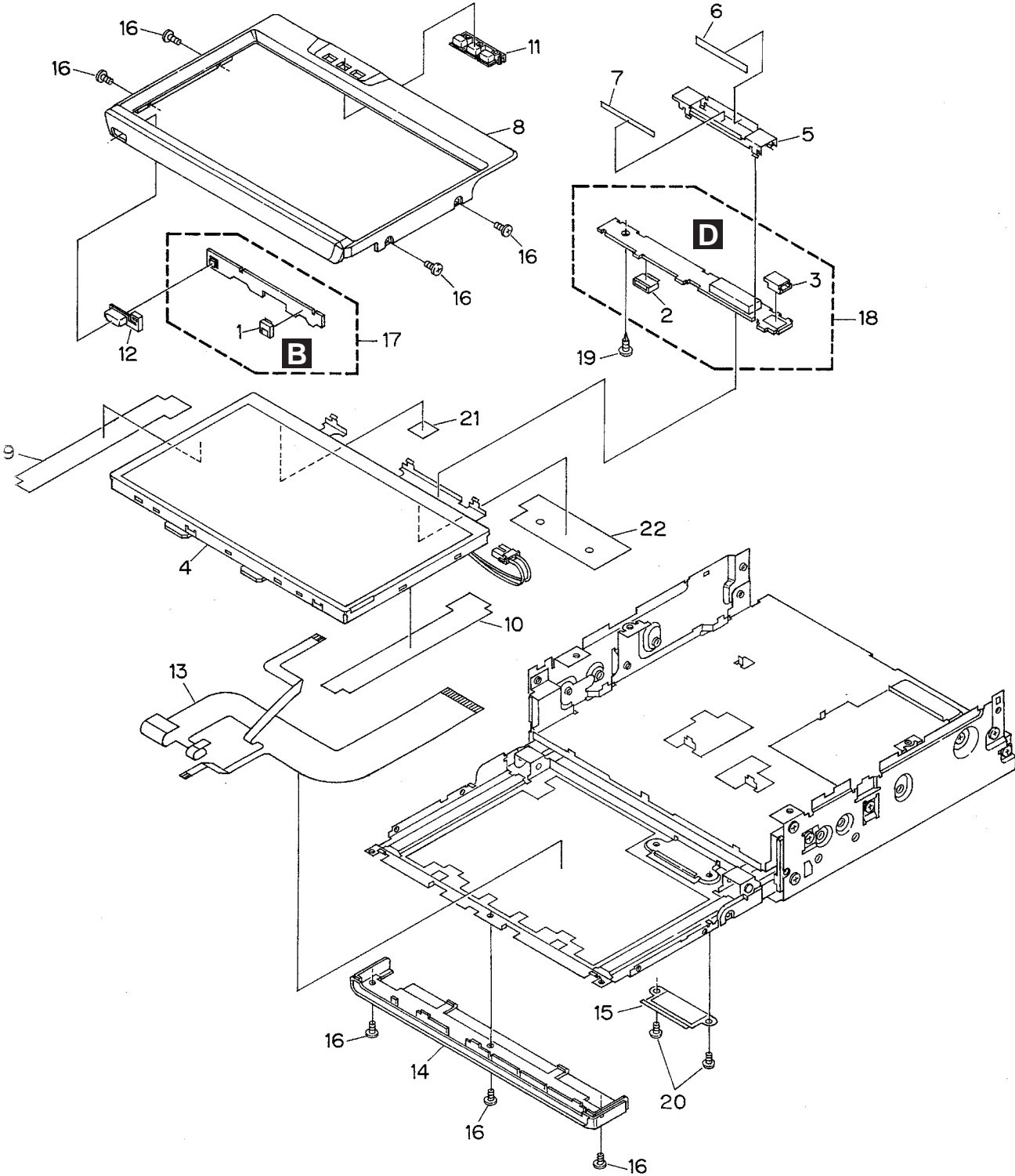
2.3 EXTERIOR(2/3)



● EXTERIOR(2/3) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Drive Unit	CXB7323	41	Screw(M1.7x3)	CBA1475
2	Rail	CNS6492	42	Screw(M2x2)	CBA1484
3	Rail	CNS6493	43	Screw(M3x3)	CBA1534
4	Guide	CNS6494	44	Washer	CBF1064
5	Guide	CNS6495	45	Spring	CBH2469
6	Gear	CNV6654	46	Spring	CBH2470
7	Gear	CNV6655	47	Spring	CBL1527
8	Rack	CNV6669	48	Spring	CBL1534
9	Guide	CNV6672	49	Spring	CBL1545
10	Roller	CNV6673	50	Cord Assy	CDE6685
11	Guide	CNV6750	51	Shaft	CLA4007
12	Guide	CNV6751	52	Chassis	CNA2385
13	Rack	CNV6752	53	Holder	CNC9302
14	Guide	CNV6765	54	Holder	CNC9303
15	Guide	CNV6766	55	Cover	CNC9304
16	Gear	CNV6824	56	Frame	CNC9455
17	Gear	CNV6825	57	Holder	CNC9516
18	Gear	CNV6826	58	Holder	CNC9517
19	Gear	CNV6827	59	Insulator	CNM7335
20	Encoder Unit	CWM7620	59	Insulator	CNM7380
21	Screw	BMZ26P050FMC	60	Cushion	CNM7377
22	Cord Assy	CDE6686	61	Insulator	CNM7335
23	Terminal(CN2801)	CKF1064	62	Sheet	CNM7415
24	Connector(CN2804)	CKS4054	63	Insulator	CNM7490
25	Connector(CN2805)	CKS4282	64	Insulator	CNM7491
26	Heat Sink	CNC9312	65	Connector(CN2806)	CKS4282
27	Frame Unit	CXB7051	66	IC(IC2801)	TA7806S
* 28	Case Unit	CXB7052	67	Relay Unit	CWM7752
29	Rail Unit	CXB7064	68	Connector(CN1102)	CKS4054
30	Rail Unit	CXB7065	69	Connector(CN1103)	CKS4495
31	Gear Unit	CXB7437	70	Connector(CN1101)	CKS4495
32	Shaft Unit	CXB7611	71	PCB	CNP6440
33	Motor Unit(M1)(Drive Motor)	CXB7612	72	Screw(M2x2.5)	CBA1076
34	Screw	IMS20P030FMC	73	FFC	CDE6555
35	Screw	JFZ20P020FZK	74	Screw(UC,EW model)	CBA1484
36	Screw	JFZ20P040FZK		Screw(ES model)	CBA1551
37	Screw	JGZ20P020FMC	75	Cover	CNC9467
38	Washer	YE20FUC			
39	Screw(M2x2.2)	CBA1419			
40	Screw(M2x2.5)	CBA1447			

2.4 EXTERIOR(3/3)



(1) EXTERIOR(3/3) SECTION PARTS LIST

Mark No.	Description	Part No.	Mark No.	Description	Part No.
1	Connector(CN1301)	CKS4448	11	Button(WIDE/ANGLE)	CAC7013
2	Connector(CN2941)	CKS4054	12	Button(OPEN/CLOSE)	CAC7014
3	Connector(CN2942)	CKS4428	13	PCB	CNP6272
4	LCD Module	CWX2565	14	Cover	See Contrast table(2)
5	Holder	CNC9500	15	Holder	CNC9535
6	Insulator	CNM7351	16	Screw	See Contrast table(2)
7	Insulator	CNM7352	17	Control Unit	See Contrast table(2)
8	Grille Unit	See Contrast table(2)	18	Keyboard Unit	See Contrast table(2)
9	Sheet	CNM7592	19	Screw	BPZ20P060FMC
10	Sheet	CNM7591	20	Screw	JFZ20P022FNI
			21	Sheet	CNM7593
			22	Sheet	CNM7594

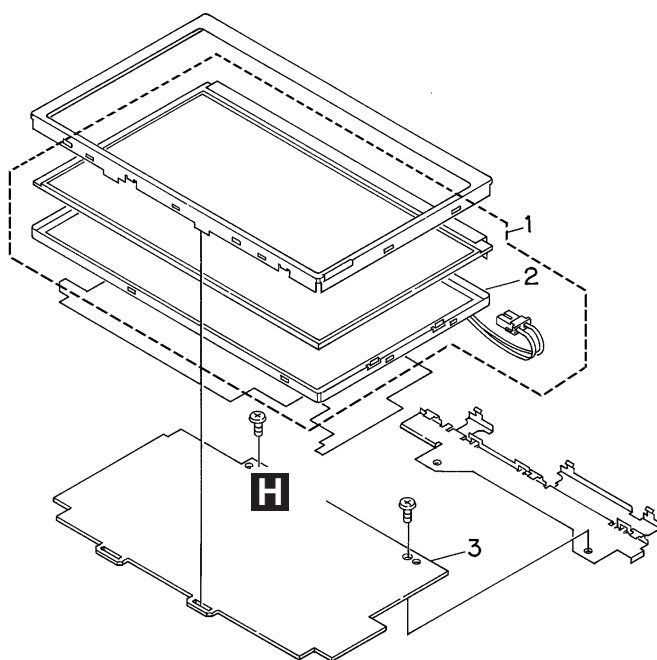
● Please stop the reuse of this sheet when you peel off sheet(9,10,21,22).

(2) CONTRAST TABLE

AVX-7300/UC , AVX-7300/EW and AVX-7300/ES are constructed the same except for the following:

Mark No.	Description	Part No.		
		AVX-7300/UC	AVX-7300/EW	AVX-7300/ES
8	Grille Unit	CXB7268	CXB7268	CXB7557
14	Cover	CNS6628	CNS6628	CNS6564
16	Screw	CBA1484	CBA1484	CBA1551
17	Control Unit	CWM7742	CWM7741	CWM7743
18	Keyboard Unit	CWM7747	CWM7746	CWM7747

2.5 LCD MODULE



● LCD MODULE SECTION PARTS LIST

Mark No.	Description	Part No.
1	LCD Module	TFD70W80
2	Back Light Unit	NML75-9252-P
3	Video Schematic	NMP70-9253-P

3. BLOCK DIAGRAM AND SCHEMATIC DIAGRAM

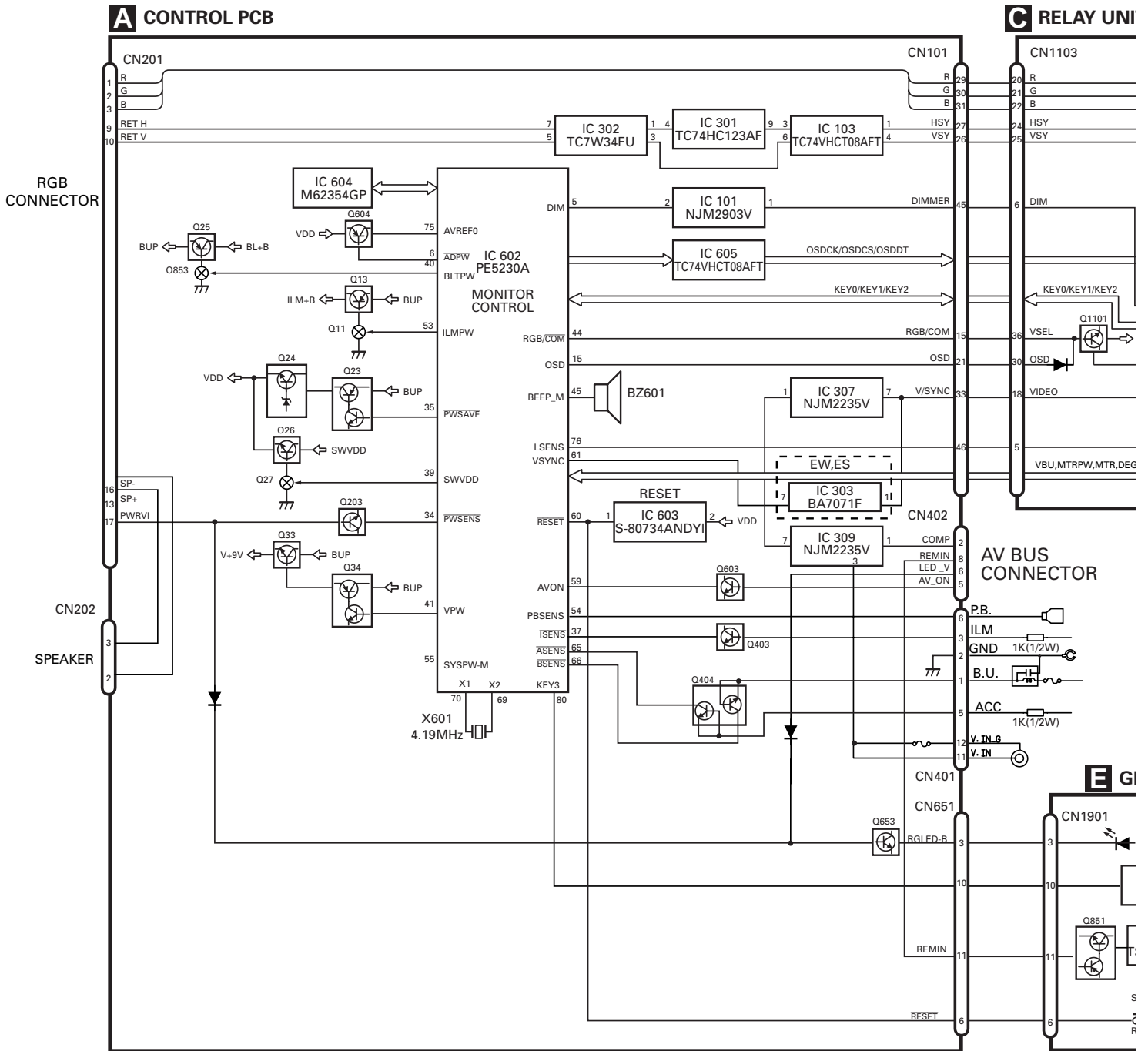
3.1 BLOCK DIAGRAM

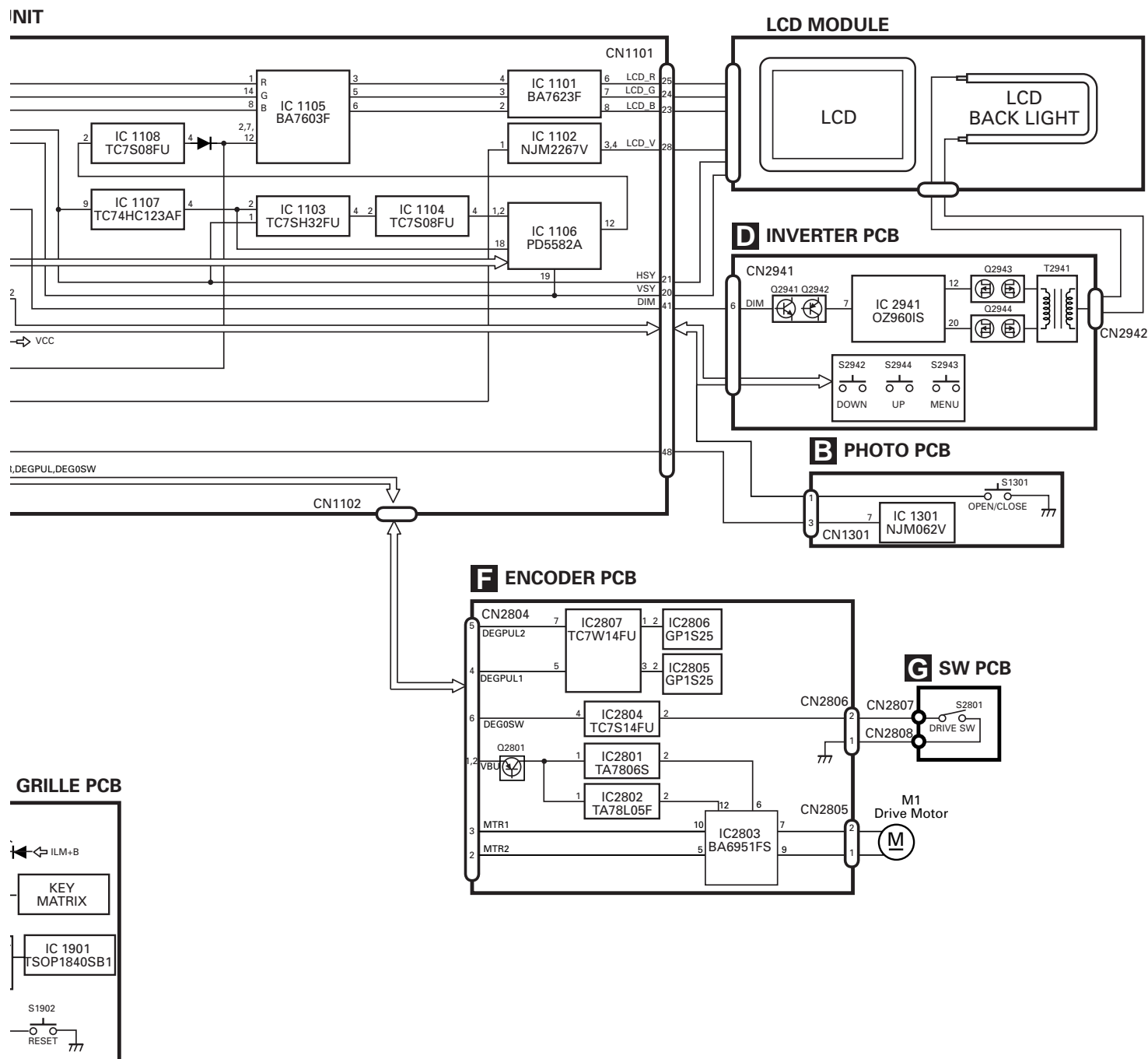
A

B

C

D





Note: When ordering service parts, be sure to refer to “EXPLODED VIEWS AND PARTS LIST” or “ELECTRICAL PARTS LIST”.

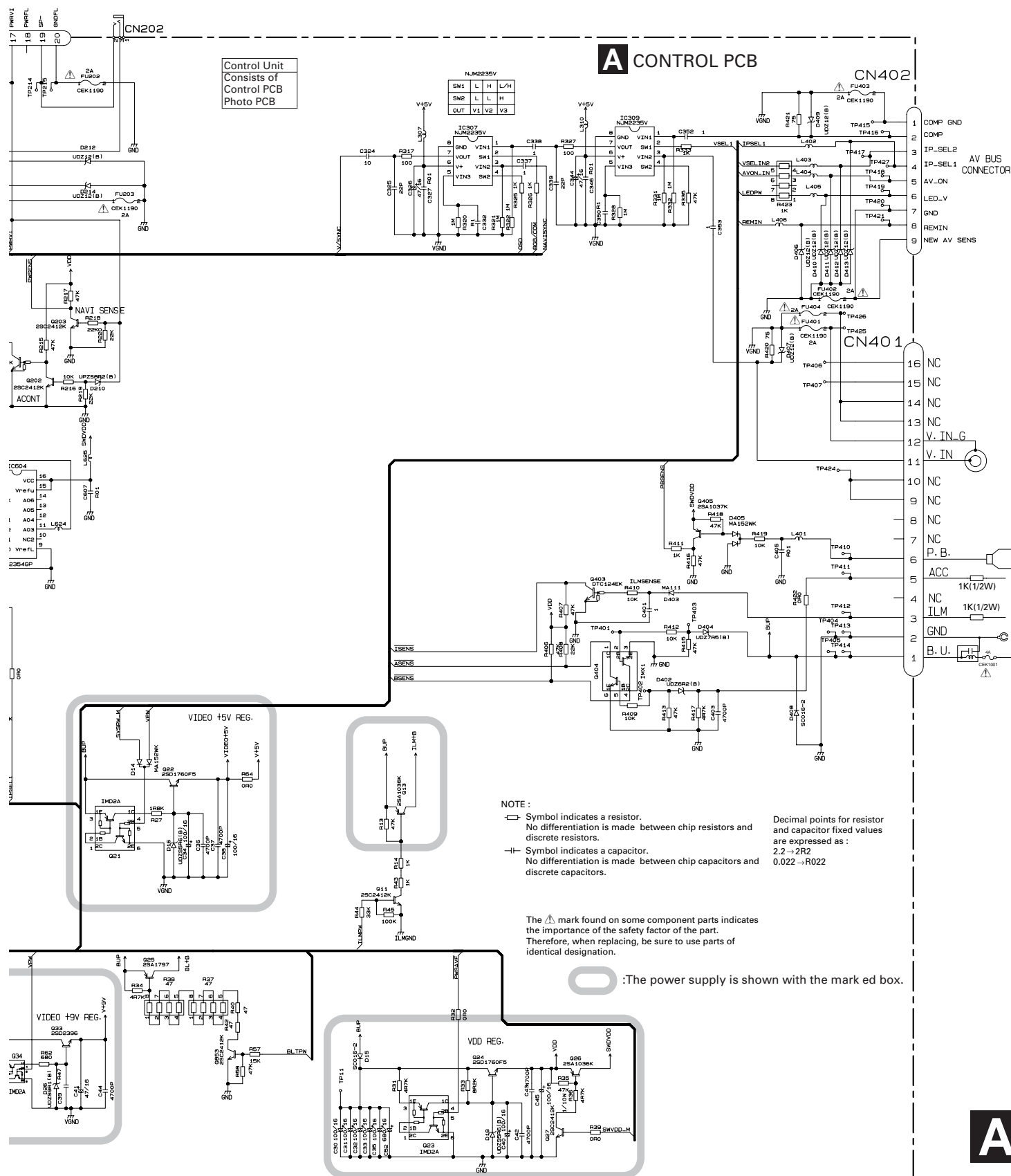
D



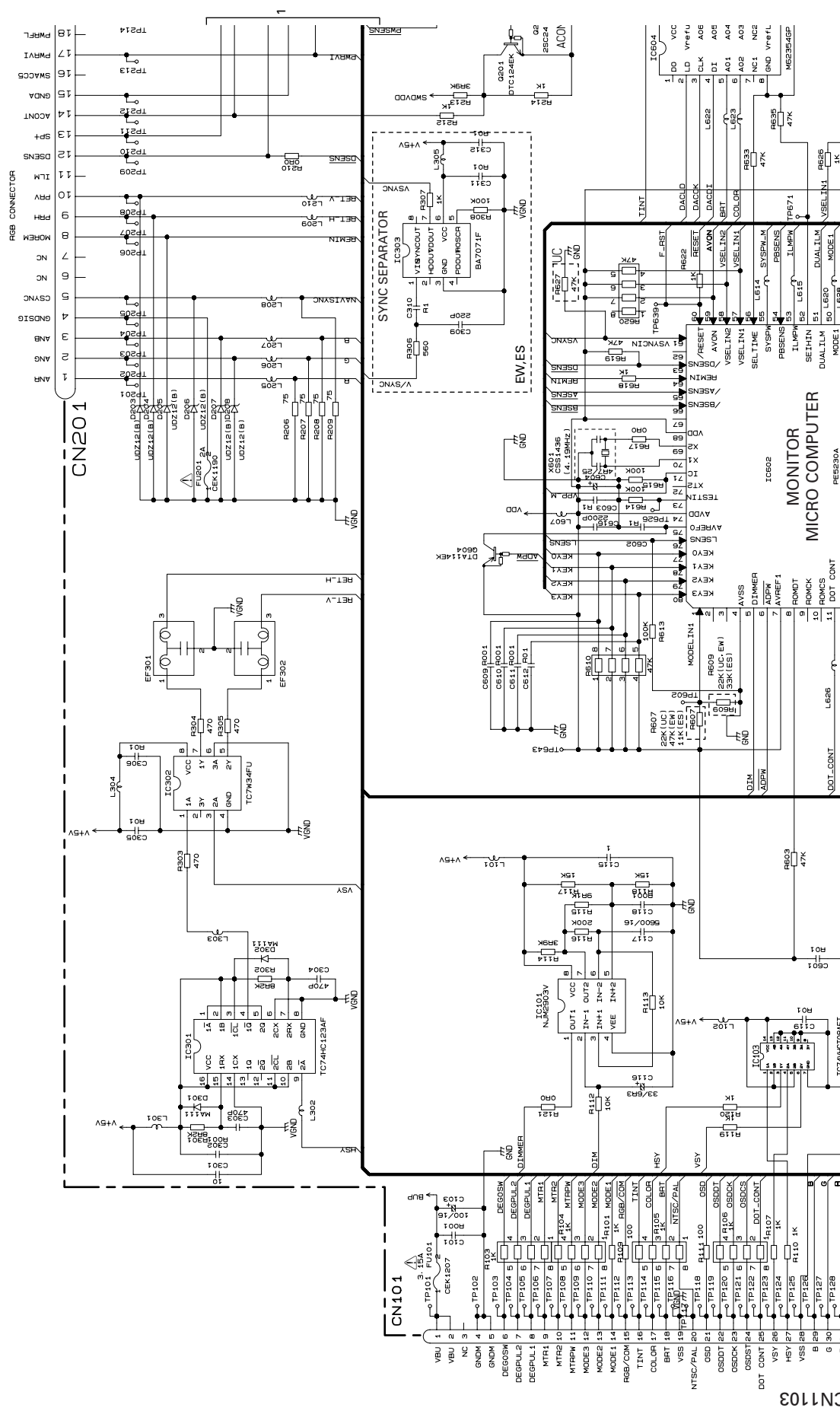
A-b

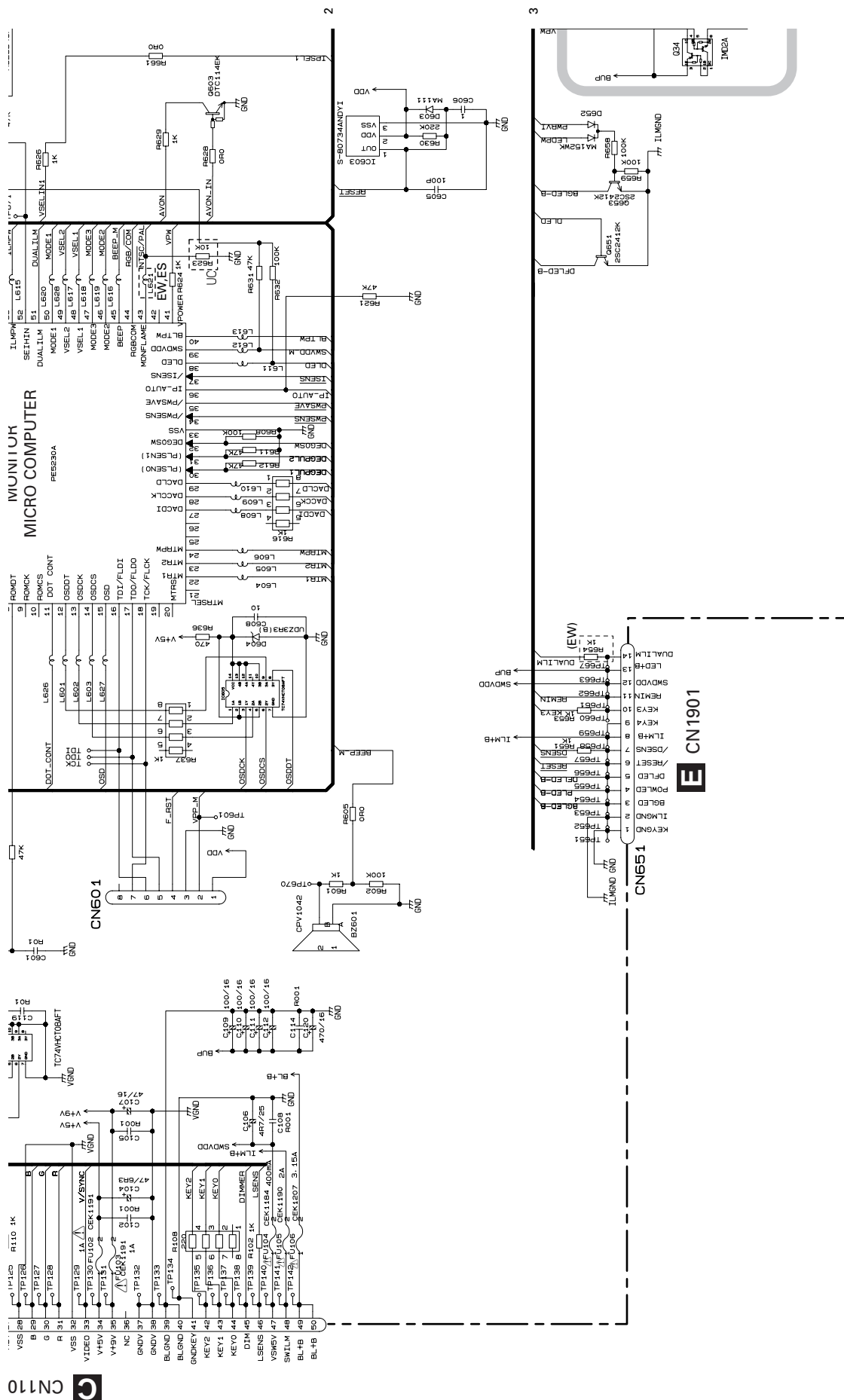
A CONTROL PCB

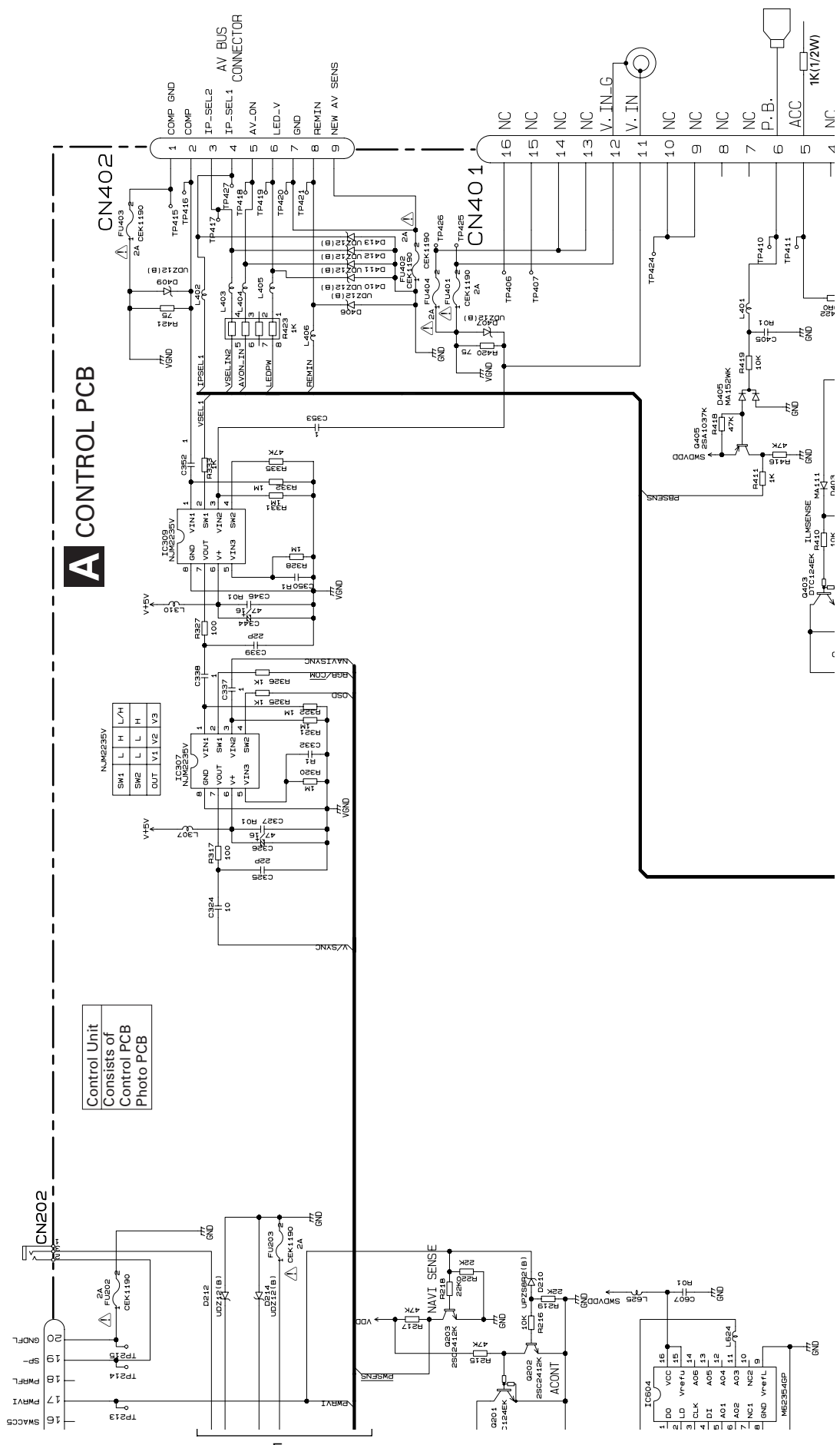
Control Unit
Consists of
Control PCB
Photo PCB

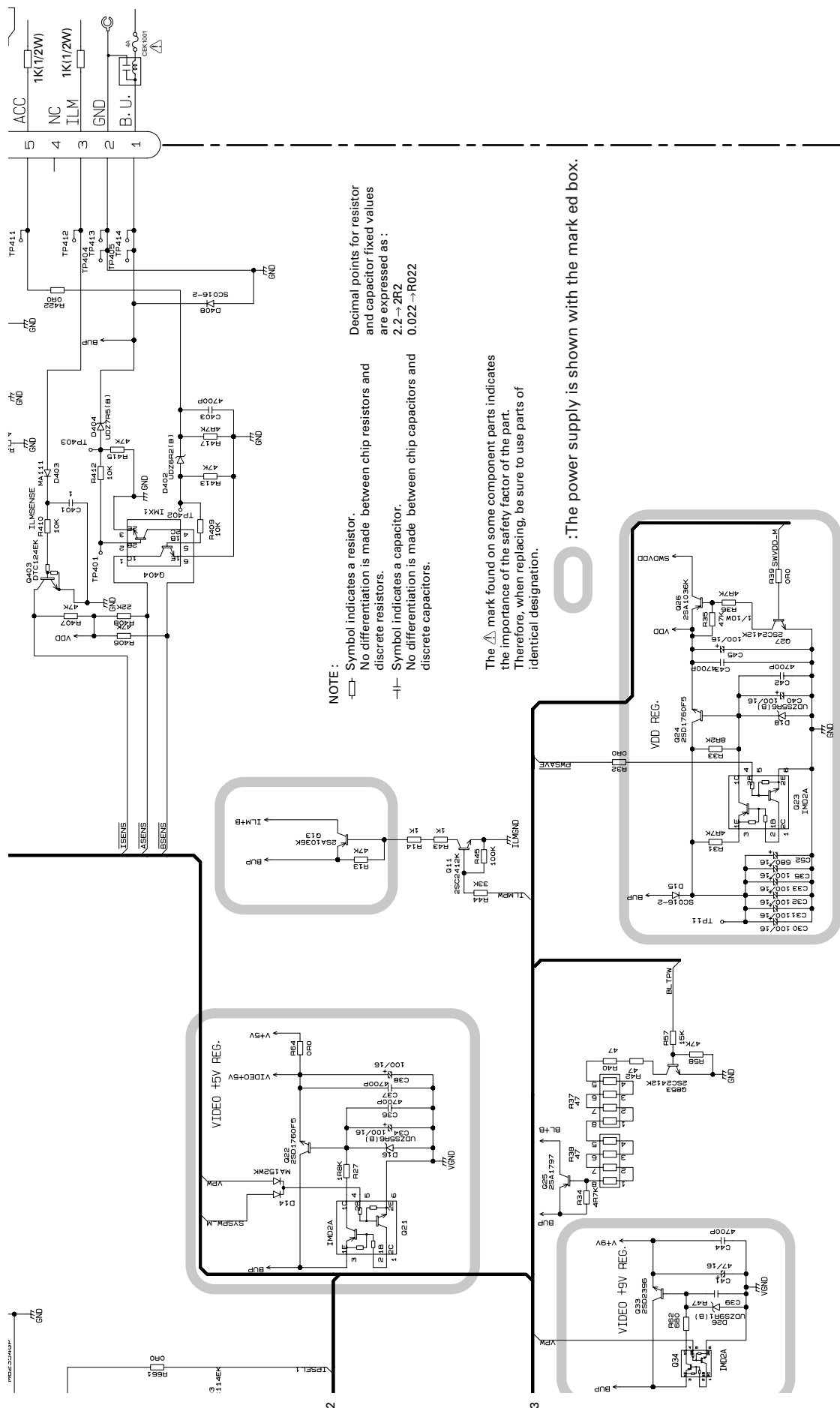


A









:The power supply is shown with the mark ed box.

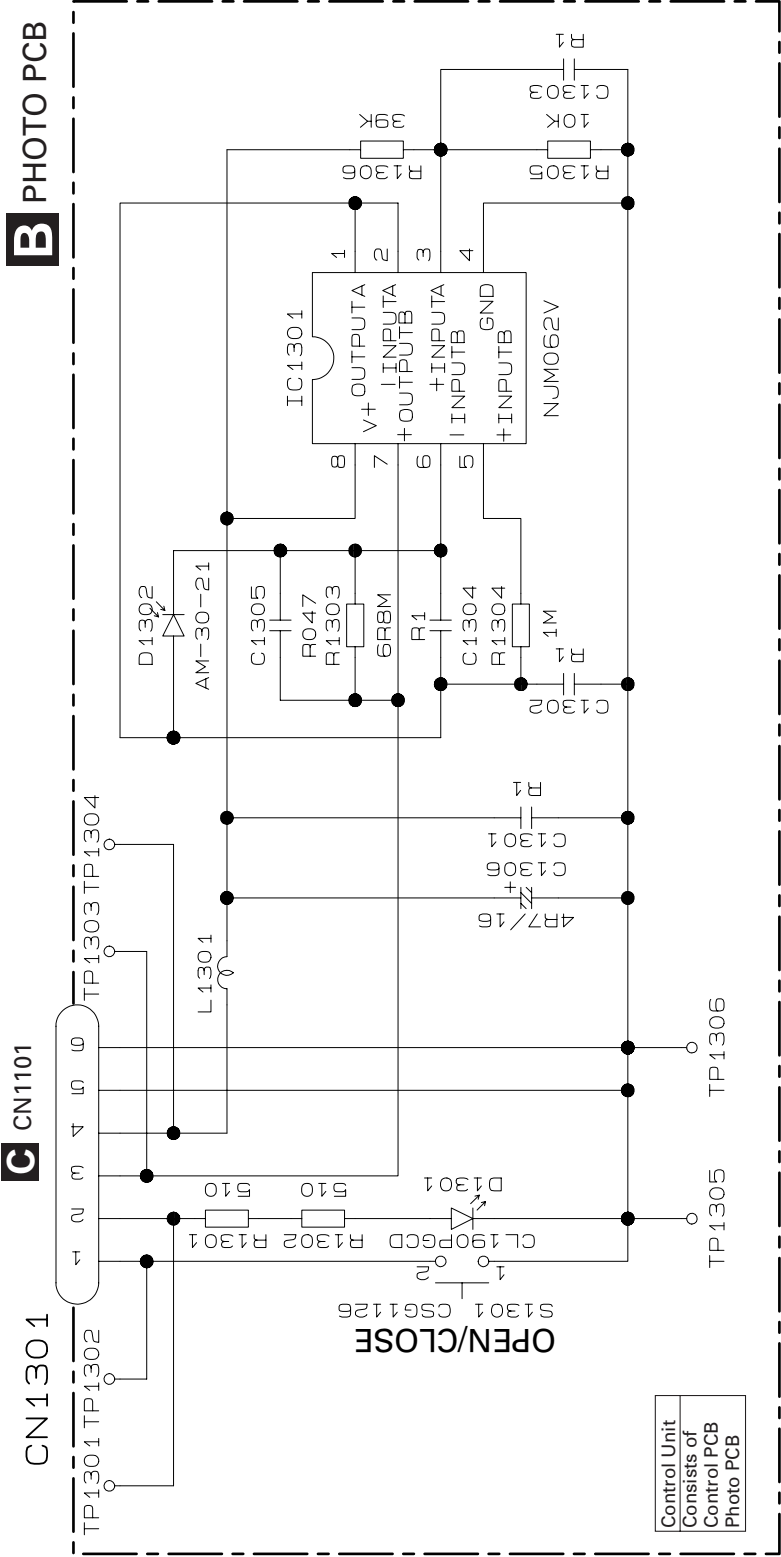
The Δ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.

NOTE:

- Symbol indicates a resistor.
- No differentiation is made between chip resistors and discrete resistors.
- Symbol indicates a capacitor.
- No differentiation is made between chip capacitors and discrete capacitors.

Decimal points for resistor and capacitor fixed values are expressed as :
2.2 \rightarrow 2R2
0.022 \rightarrow R022

3.3 PHOTO PCB



3.5 RELAY UNIT

A

B

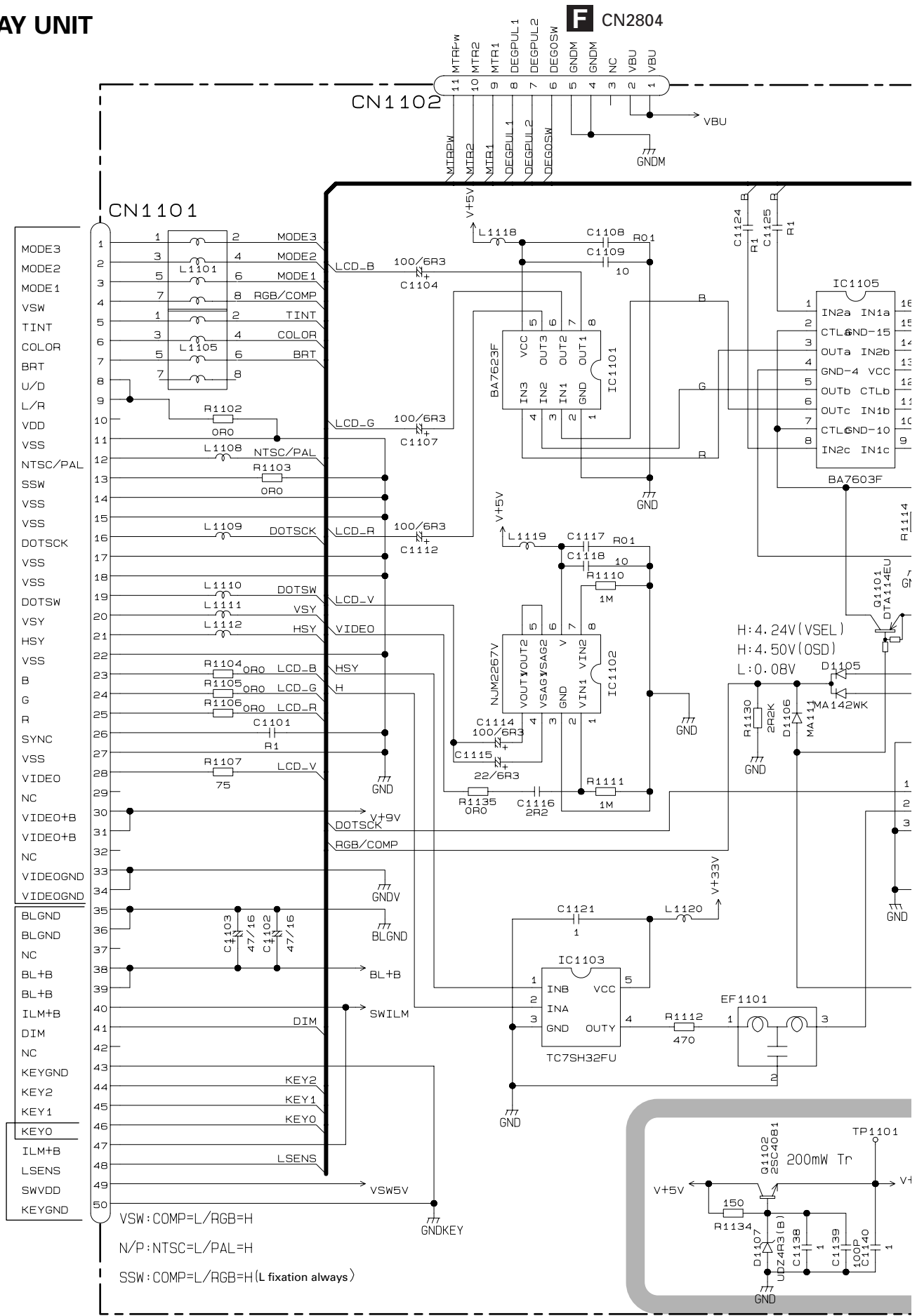
C

D

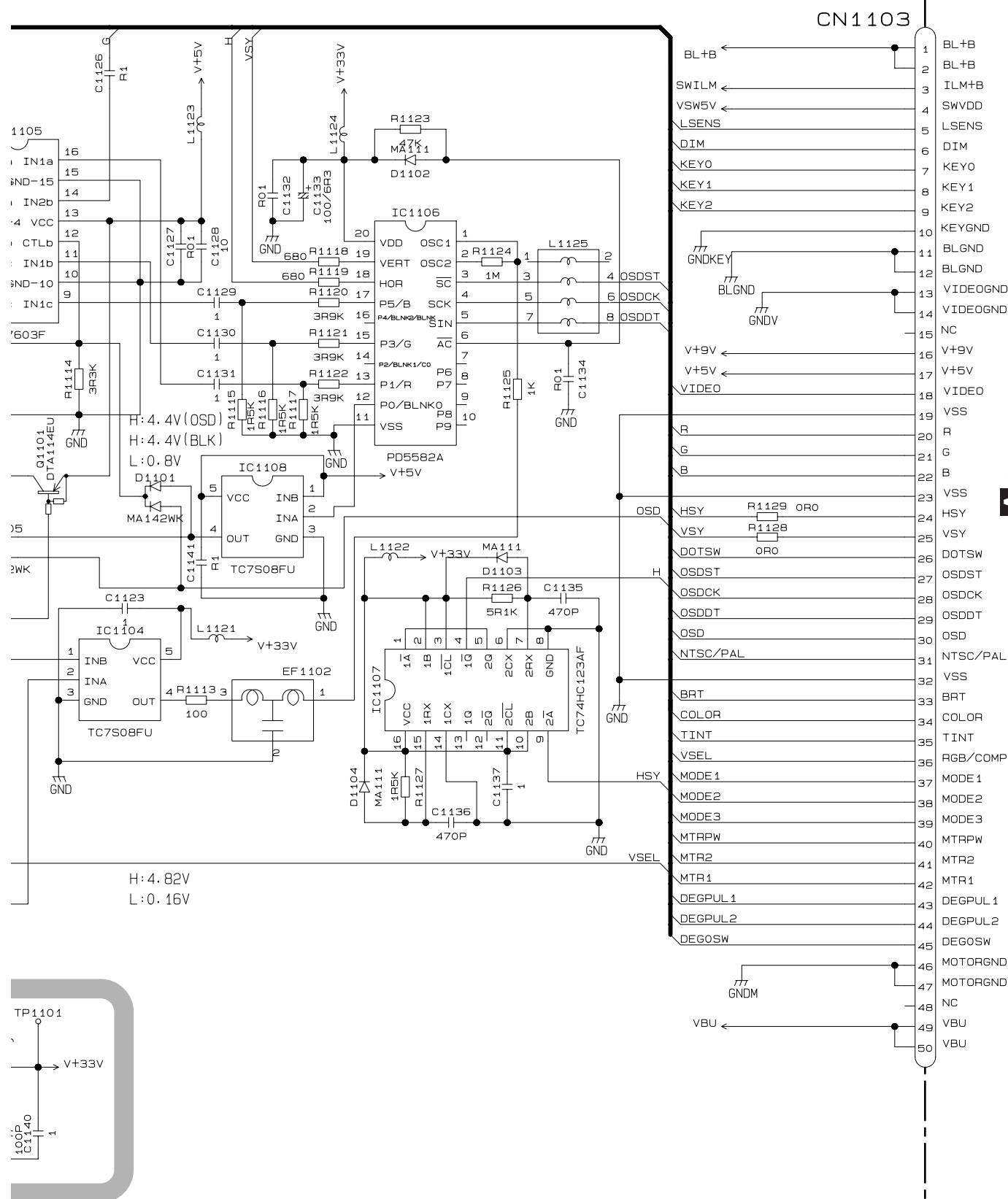
LCD MODULE H CN001

D CN2941

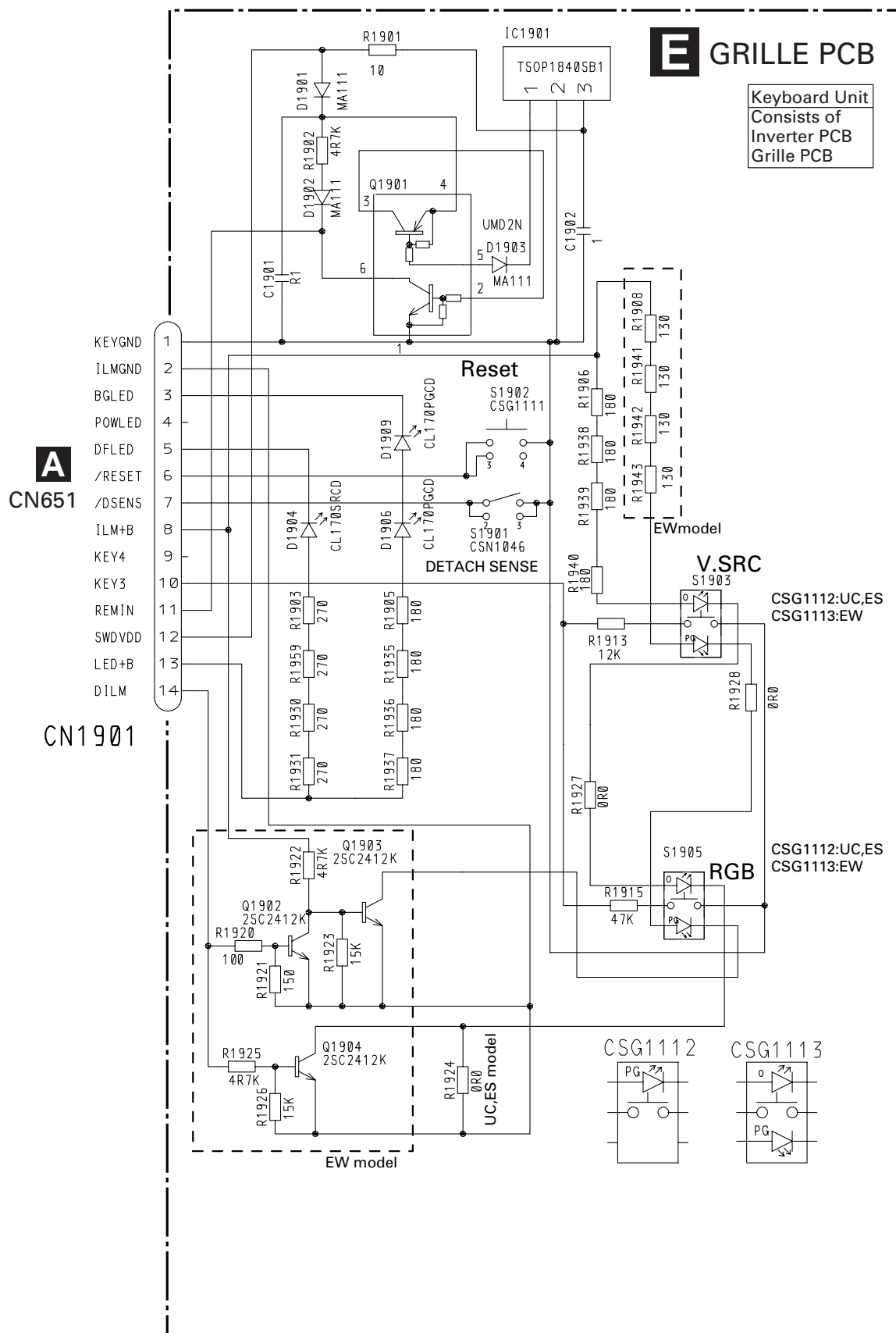
B CN1301



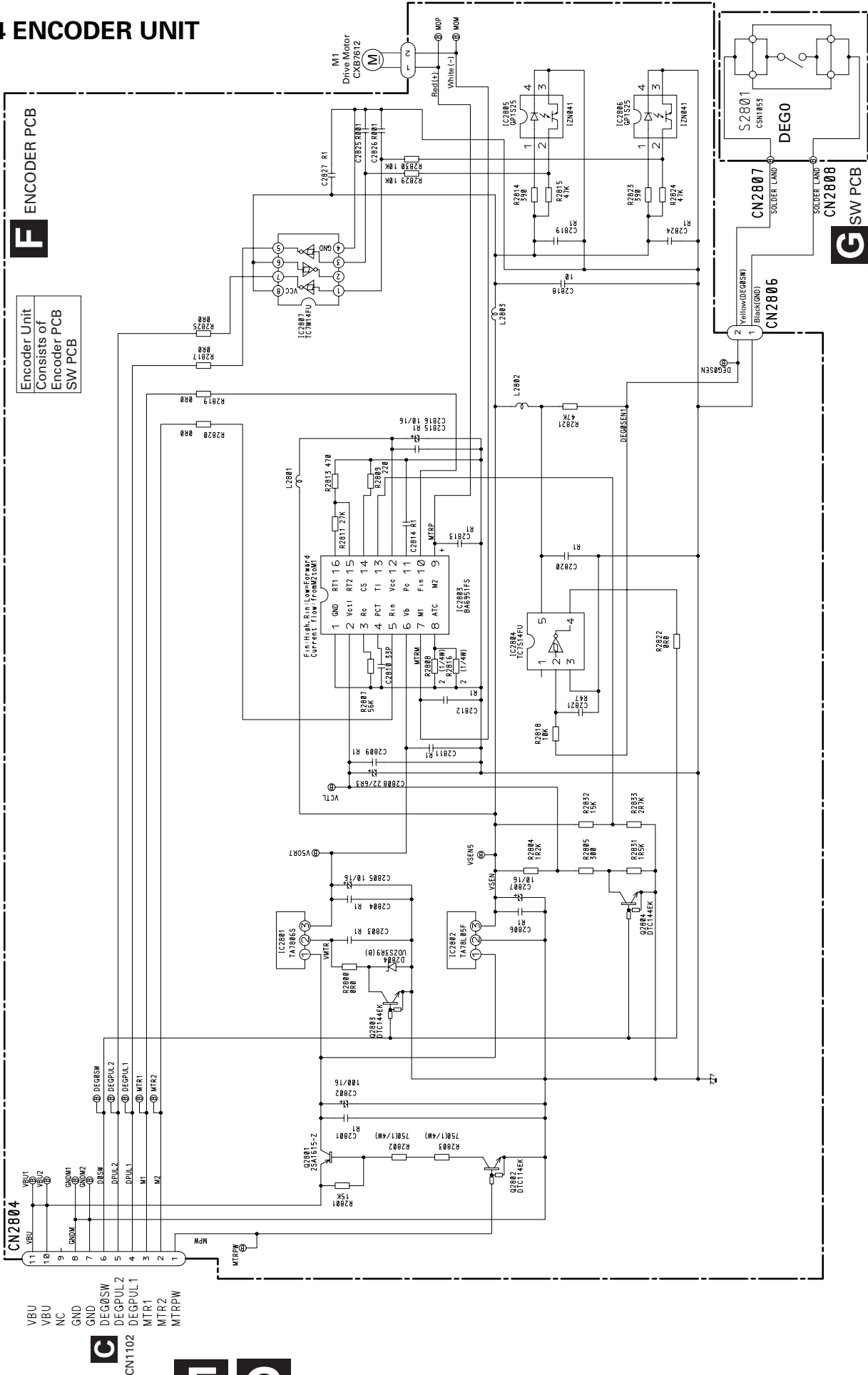
C RELAY UNIT



3.7 GRILLE PCB



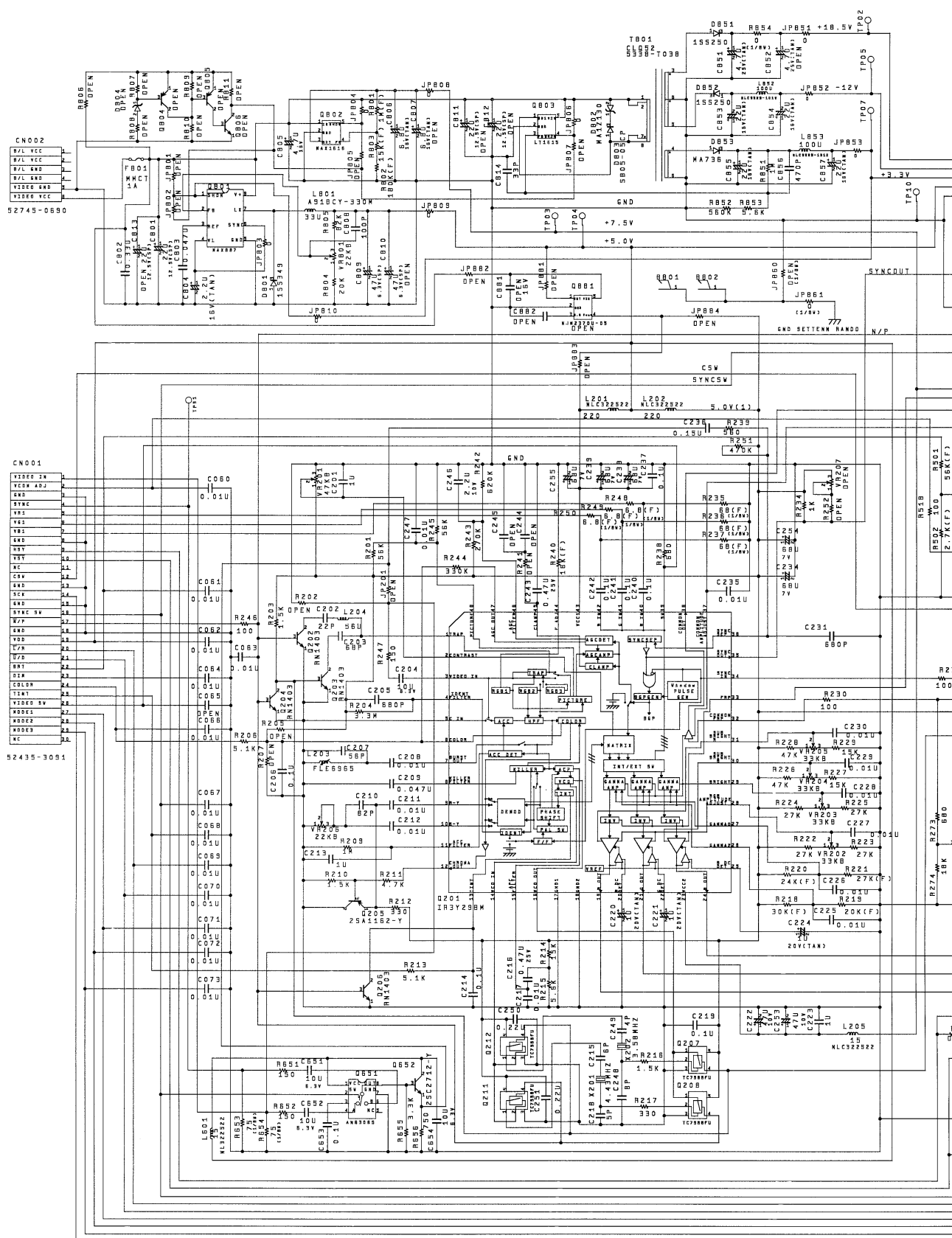
3.4 ENCODER UNIT



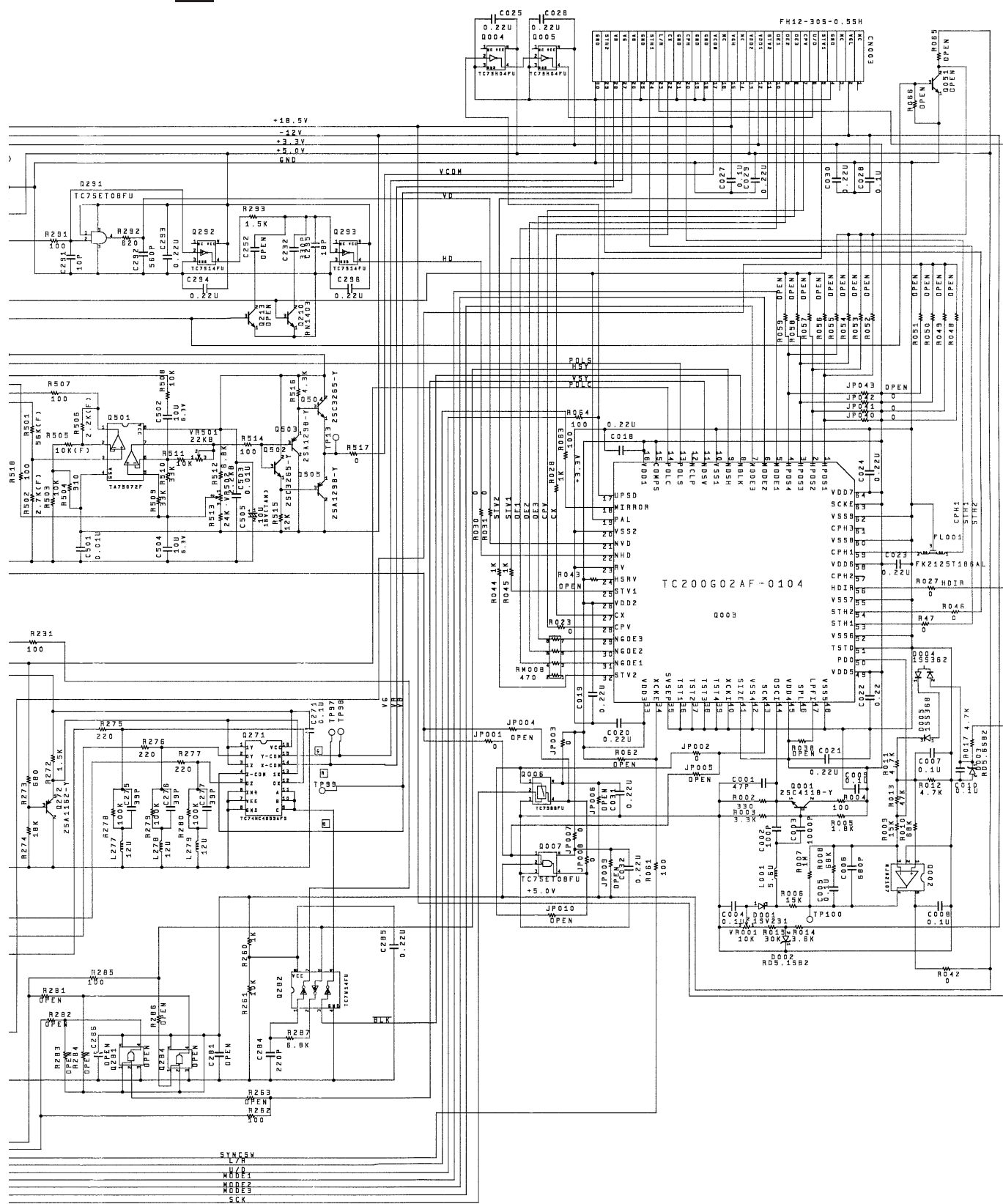
Encoder Unit	Consists of Encoder PCB SW PCB
--------------	--------------------------------------

G SW PCB CN 2000

3.8 VIDEO SCHEMATIC



H VIDEO SCHEMATIC

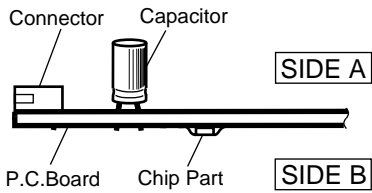


4. PCB CONNECTION DIAGRAM

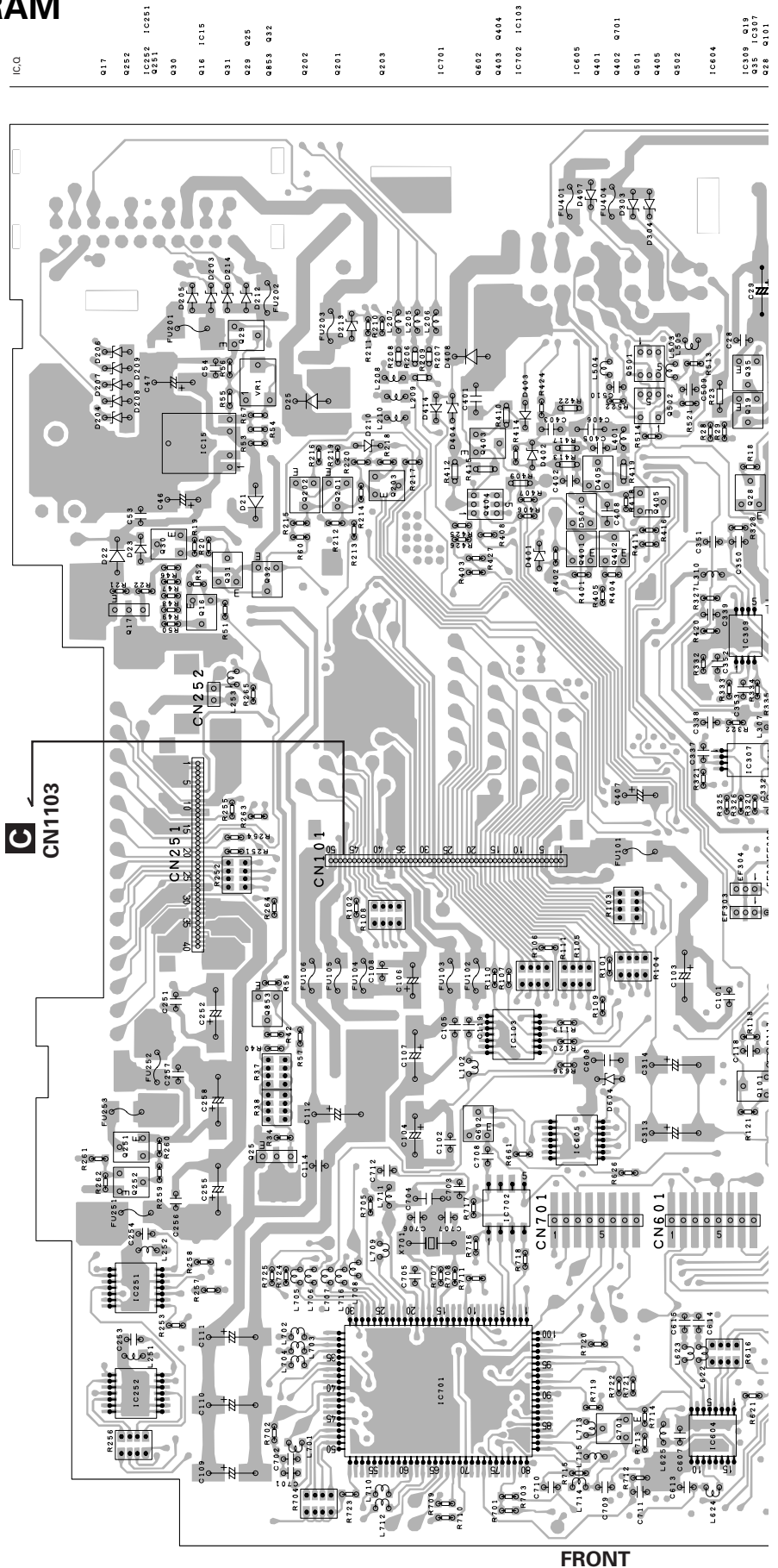
4.1 CONTROL PCB

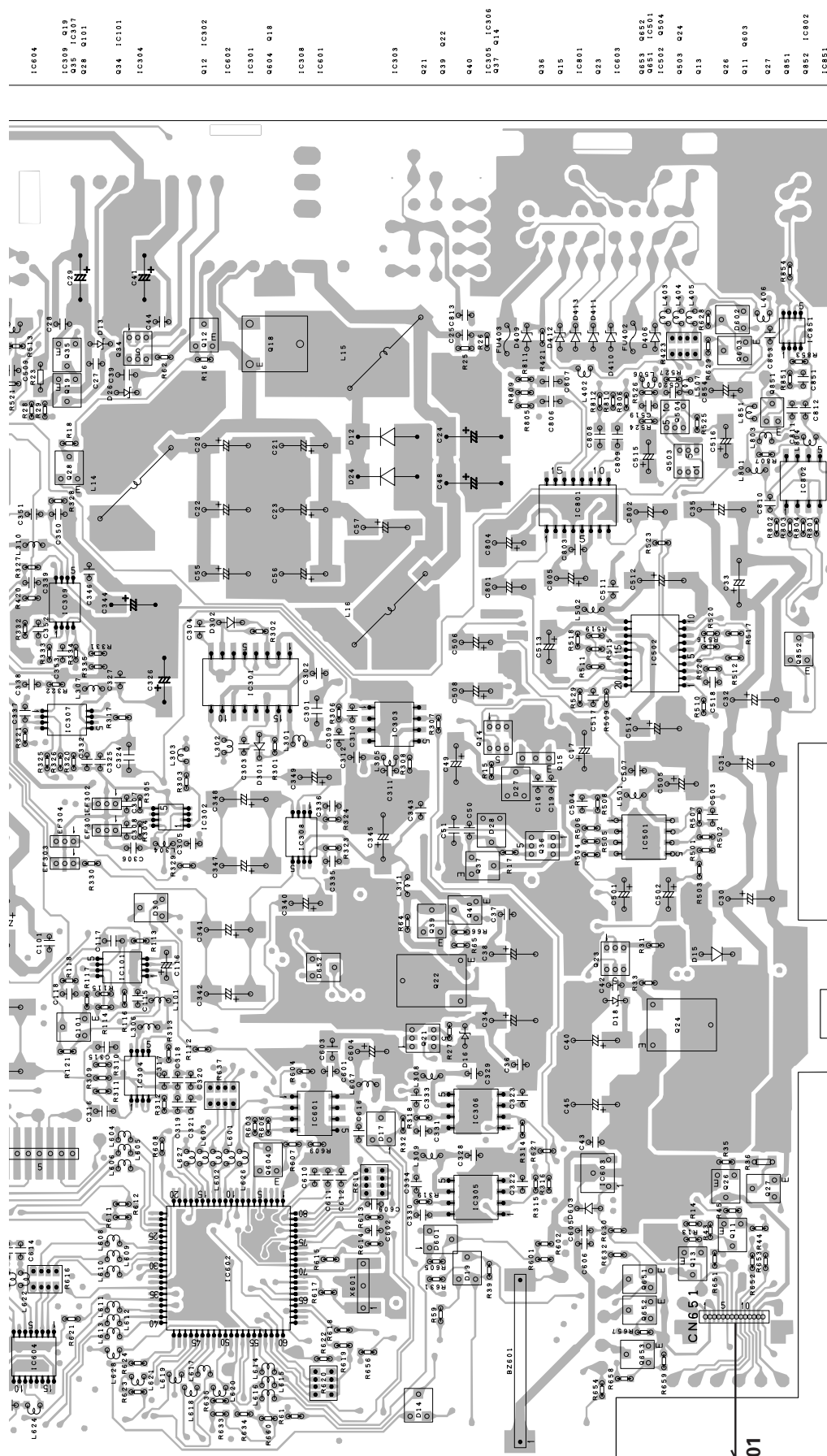
NOTE FOR PCB DIAGRAMS

- 1. The parts mounted on this PCB include all necessary parts for several destination.
- For further information for respective destinations, be sure to check with the schematic diagram.
- 2. Viewpoint of PCB diagrams



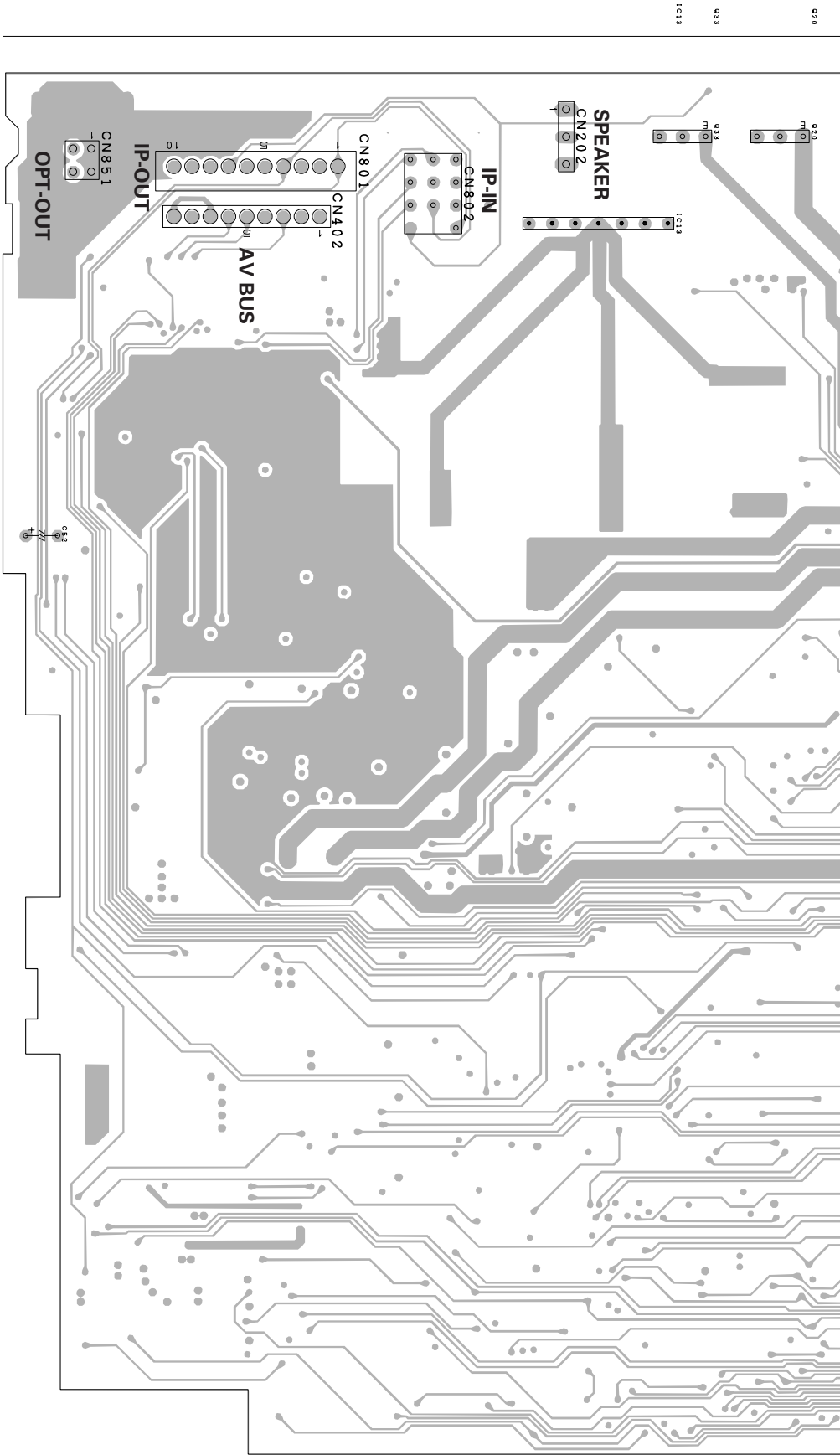
A CONTROL PCB



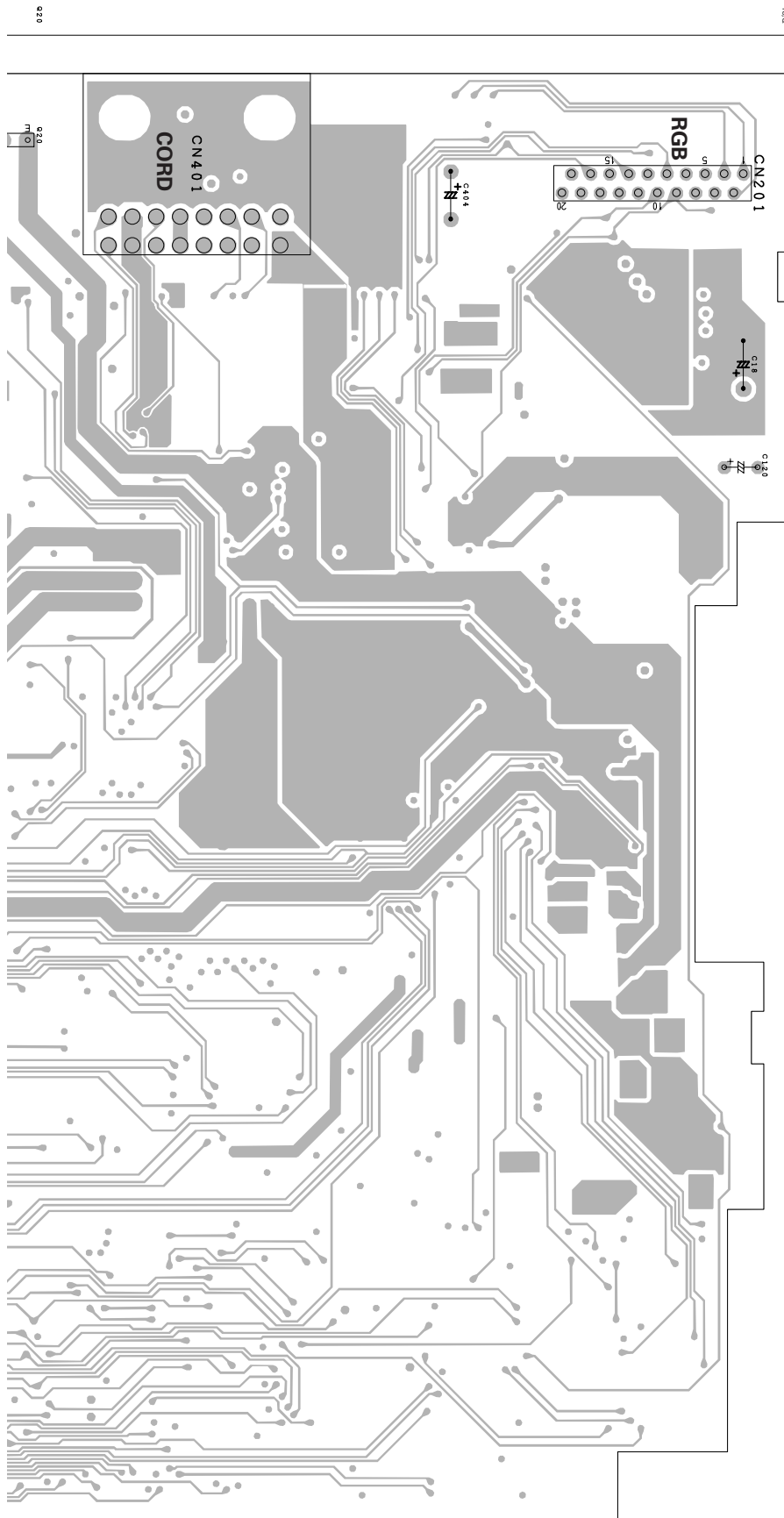


E **CN1901**

A



SIDE B



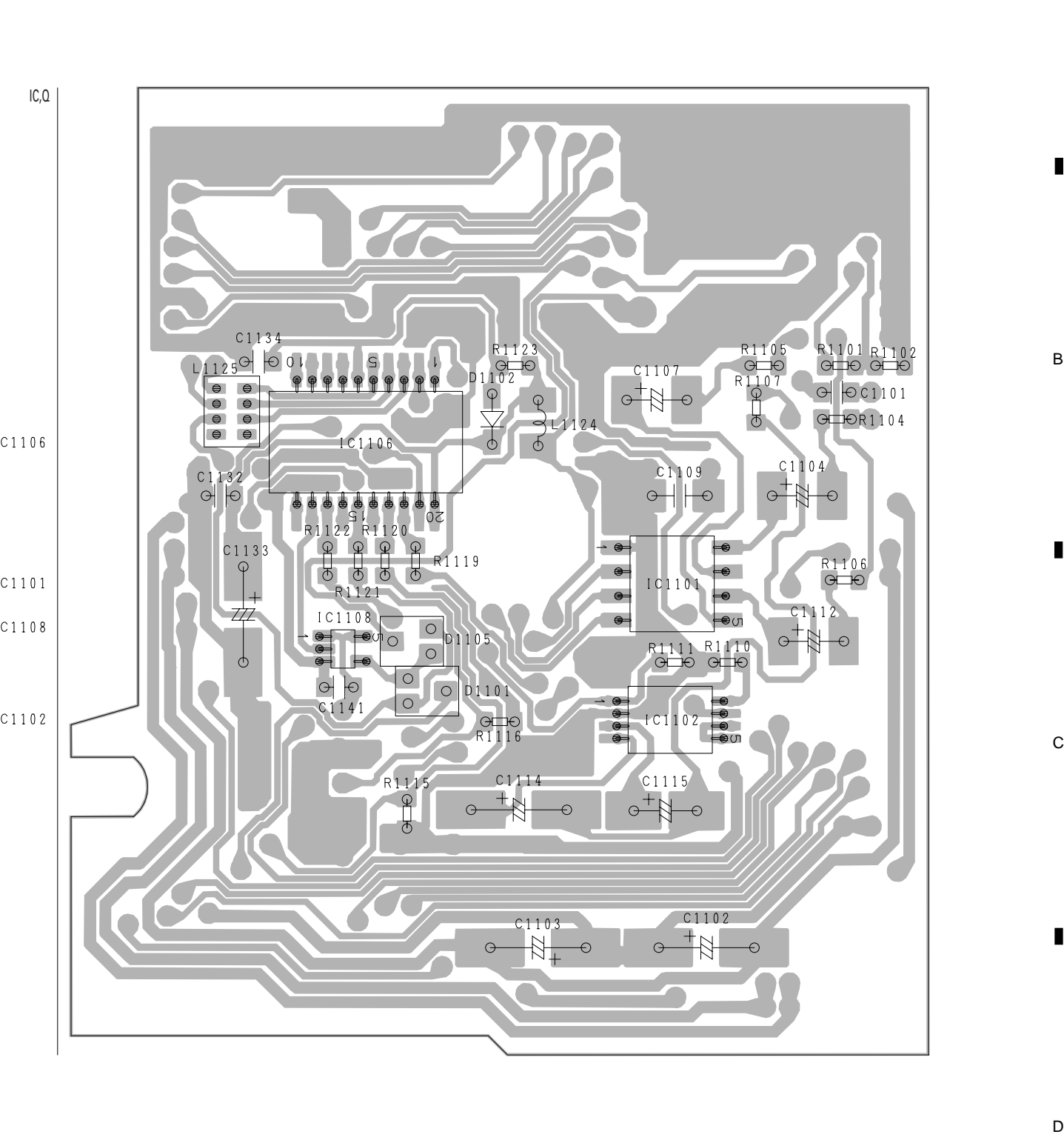
32

32

32

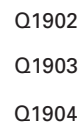


SIDE B A



D INVERTER PCB





4.5 ENCODER PCB

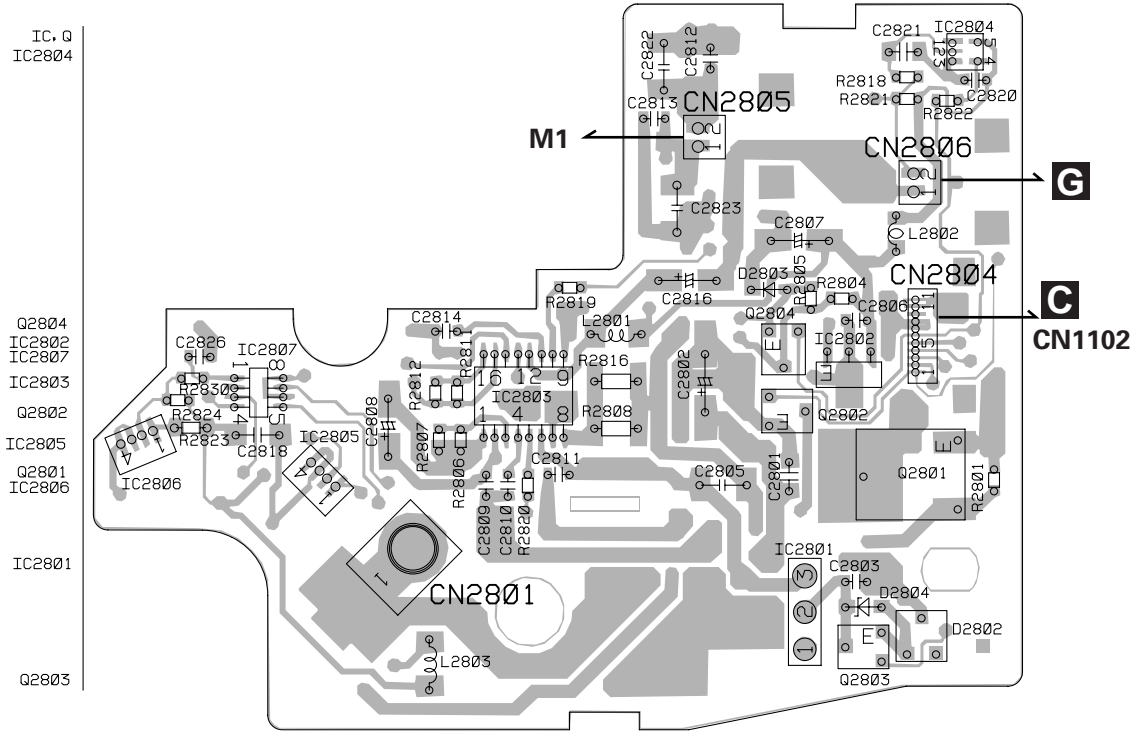
F ENCODER PCB

A

B

C

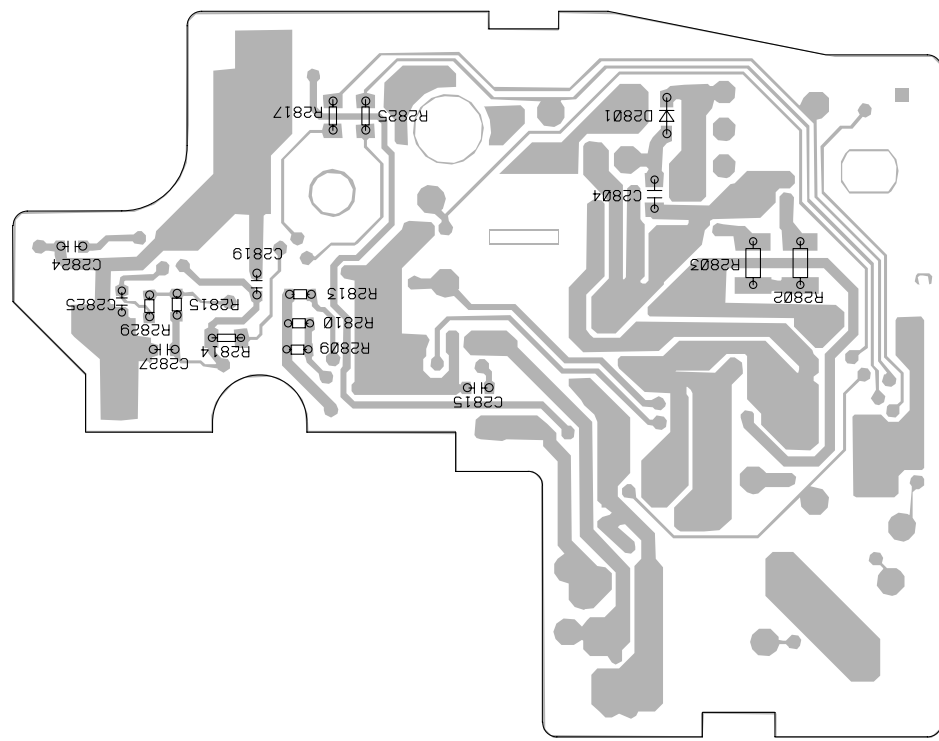
D



SIDE A

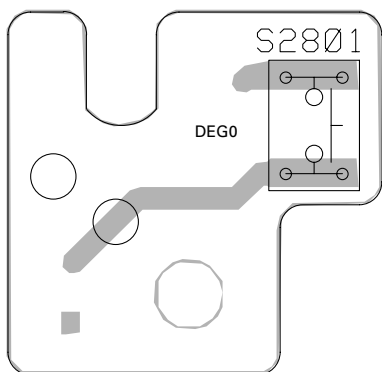
F ENCODER PCB

SIDE B



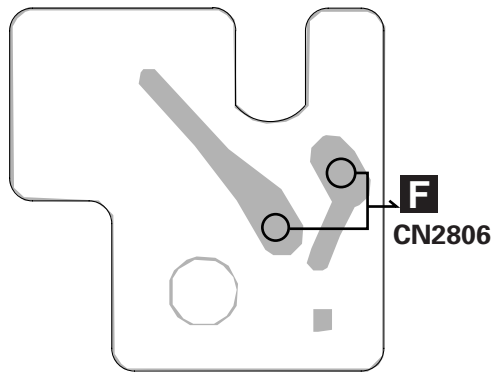
4.6 SW PCB

G SW PCB



SIDE A

G SW PCB

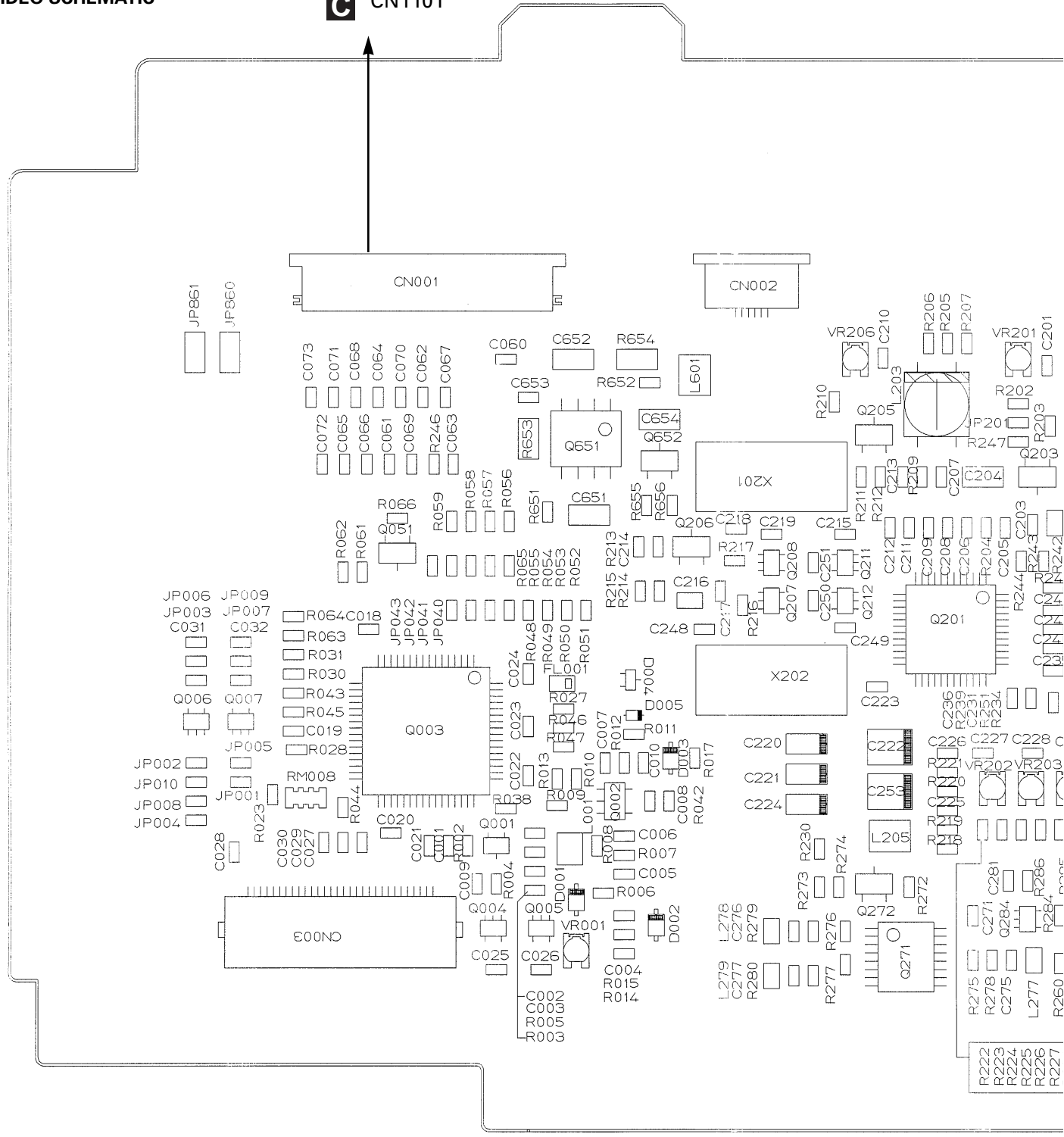


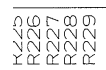
SIDE B

4.7 VIDEO SCHEMATIC

VIDEO SCHEMATIC

CN1101





4.8 PHOTO PCB

B
PHOTO PCB

IC,Q

IC1301

SIDE A

C
CN1101

OPEN/CLOSE

B
PHOTO PCB

SIDE B

5. ELECTRICAL PARTS LIST

NOTE:

- Parts whose parts numbers are omitted are subject to being not supplied.
- The part numbers shown below indicate chip components.

Chip Resistor

RS1/○S○○○○J,RS1/○○S○○○○J

Chip Capacitor (except for CQS.....)

CKS....., CCS....., CSZS.....

====Circuit Symbol and No.====Part Name	Part No.	====Circuit Symbol and No.====Part Name	Part No.
Control Unit		D 204 Diode	UDZ12(B)
		D 205 Diode	UDZ12(B)
Consists of Control PCB Photo PCB		D 206 Diode	UDZ12(B)
		D 207 Diode	UDZ12(B)
		D 208 Diode	UDZ12(B)
		D 210 Diode	UDZS8R2(B)
Unit Number : CWM7742(UC) CWM7741(EW) CWM7743(ES) Unit Name : Control Unit		D 212 Diode	UDZ12(B)
		D 214 Diode	UDZ12(B)
		D 301 Diode	MA111
		D 302 Diode	MA111
		D 402 Diode	UDZ6R2(B)
		D 403 Diode	MA111
		D 404 Diode	UDZ7R5(B)
		D 405 Diode	MA152WK
		D 406 Diode	UDZ12(B)
		D 407 Diode	UDZ12(B)
MISCELLANEOUS		D 408 Diode	SC016-2
		D 409 Diode	UDZ12(B)
		D 410 Diode	UDZ12(B)
		D 411 Diode	UDZ12(B)
		D 412 Diode	UDZ12(B)
		D 413 Diode	UDZ12(B)
		D 603 Diode	MA111
		D 604 Diode	UDZ3R3(B)
		D 652 Diode	MA152WK
		D 1301 LED	CL190PGCD
IC 101 IC	NJM2903V	D 1302 Diode	AM-30-21
IC 103 IC	TC74VHCT08AFT	L 101 Inductor	CTF1305
IC 301 IC	TC74HC123AF	L 102 Inductor	CTF1379
IC 302 IC	TC7W34FU	L 205 Inductor	CTF1305
IC 303 IC(EW,ES)	BA7071F	L 206 Inductor	CTF1305
IC 307 IC	NJM2235V	L 207 Inductor	CTF1305
IC 309 IC	NJM2235V	L 208 Inductor	CTF1305
IC 602 IC	PE5230A	L 209 Inductor	CTF1305
IC 603 IC	S-80734ANDYI	L 210 Inductor	CTF1305
IC 604 IC	M62354GP	L 301 Inductor	CTF1379
IC 605 IC	TC74VHCT08AFT	L 302 Inductor	CTF1379
IC 1301 IC	NJM062V	L 303 Inductor	CTF1379
Q 11 Transistor	2SC2412K	L 304 Inductor	LCTB2R2K2125
Q 13 Transistor	2SA1036K	L 305 Inductor(EW,ES)	LCTB2R2K1608
Q 21 Transistor	IMD2A	L 307 Inductor	CTF1305
Q 22 Transistor	2SD1760F5	L 310 Inductor	CTF1305
Q 23 Transistor	IMD2A	L 401 Inductor	LCTB2R2K2125
Q 24 Transistor	2SD1760F5	L 402 Inductor	CTF1379
Q 25 Transistor	2SA1797	L 403 Inductor	CTF1379
Q 26 Transistor	2SA1036K	L 404 Inductor	CTF1379
Q 27 Transistor	2SC2412K	L 405 Inductor	CTF1379
Q 33 Transistor	2SD2396	L 406 Inductor	CTF1379
Q 34 Transistor	IMD2A	L 601 Inductor	CTF1379
Q 201 Transistor	DTC124EK	L 602 Inductor	CTF1379
Q 202 Transistor	2SC2412K	L 603 Inductor	CTF1379
Q 203 Transistor	2SC2412K	L 604 Inductor	CTF1379
Q 403 Transistor	DTC124EK	L 605 Inductor	CTF1379
Q 404 Transistor	IMX1	L 606 Inductor	CTF1379
Q 405 Transistor	2SA1037K	L 607 Inductor	CTF1420
Q 603 Transistor	DTC114EK		
Q 604 Transistor	DTA114EK		
Q 651 Transistor	2SC2412K		
Q 653 Transistor	2SC2412K		
Q 853 Transistor	2SC2412K		
D 14 Diode	MA152WK		
D 15 Diode	SC016-2		
D 16 Diode	UDZS5R6(B)		
D 18 Diode	UDZS5R6(B)		
D 26 Diode	UDZ9R1(B)		
D 203 Diode	UDZ12(B)		

====Circuit Symbol and No.==Part Name			Part No.	====Circuit Symbol and No.==Part Name			Part No.
L	608	Inductor	CTF1379	R	105		RAB4C102J
L	609	Inductor	CTF1379	R	106		RAB4C102J
L	610	Inductor	CTF1379	R	107		RS1/16S102J
L	611	Inductor	CTF1379	R	108		RAB4C221J
L	612	Inductor	CTF1379	R	109		RS1/16S101J
L	613	Inductor	CTF1379	R	110		RS1/16S102J
L	614	Inductor	CTF1379	R	111		RS1/16S101J
L	615	Inductor	CTF1379	R	112		RS1/16S103J
L	616	Inductor	CTF1379	R	113		RS1/16S103J
L	617	Inductor	CTF1379	R	114		RS1/16S392J
L	618	Inductor	CTF1379	R	115		RS1/16S912J
L	619	Inductor	CTF1379	R	116		RS1/16S2003F
L	620	Inductor	CTF1379	R	117		RS1/16S153J
L	621	Inductor(EW,ES)	CTF1379	R	118		RS1/16S153J
L	622	Inductor	CTF1410	R	119		RS1/16S102J
L	623	Inductor	CTF1410	R	120		RS1/16S102J
L	624	Inductor	CTF1410	R	121		RS1/16S0R0J
L	625	Inductor	CTF1399	R	206		RS1/16S750J
L	626	Inductor	CTF1379	R	207		RS1/16S750J
L	627	Inductor	CTF1379	R	208		RS1/16S750J
L	628	Inductor	CTF1379	R	209		RS1/16S750J
L	1301	Inductor	LCTB100K2125	R	210		RS1/16S0R0J
X	601	Radiator 4.19MHz	CSS1436	R	212		RS1/16S102J
S	1301	Push Switch(OPEN/CLOSE)	CSG1126	R	213		RS1/16S392J
FU	101	Fuse 3.15A	CEK1207	R	214		RS1/16S102J
FU	102	Fuse 1A	CEK1191	R	215		RS1/16S473J
FU	103	Fuse 1A	CEK1191	R	216		RS1/16S103J
FU	104	Fuse 400mA	CEK1184	R	217		RS1/16S473J
FU	105	Fuse 2A	CEK1190	R	218		RS1/16S223J
FU	106	Fuse 3.15A	CEK1207	R	219		RS1/16S223J
FU	201	Fuse 2A	CEK1190	R	220		RS1/16S223J
FU	202	Fuse 2A	CEK1190	R	301		RS1/16S822J
FU	203	Fuse 2A	CEK1190	R	302		RS1/16S822J
FU	401	Fuse 2A	CEK1190	R	303		RS1/16S471J
FU	402	Fuse 2A	CEK1190	R	304		RS1/16S471J
FU	403	Fuse 2A	CEK1190	R	305		RS1/16S471J
FU	404	Fuse 2A	CEK1190	R	306	(EW,ES)	RS1/16S561J
EF	301	EMI Filter	CCG1067	R	307	(EW,ES)	RS1/16S102J
EF	302	EMI Filter	CCG1067	R	308	(EW,ES)	RS1/16S1003D
BZ	601	Buzzer	CPV1042	R	317		RS1/16S101J
RESISTORS				R	320		RS1/16S105J
R	13		RS1/16S473J	R	321		RS1/16S105J
R	14		RS1/16S102J	R	322		RS1/16S105J
R	27		RS1/16S182J	R	325		RS1/16S102J
R	31		RS1/16S472J	R	326		RS1/16S102J
R	32		RS1/16S0R0J	R	327		RS1/16S101J
R	33		RS1/16S822J	R	328		RS1/16S105J
R	34		RS1/16S472J	R	331		RS1/16S105J
R	35		RS1/16S473J	R	332		RS1/16S105J
R	36		RS1/10S472J	R	333		RS1/16S102J
R	37		RAB4C470J	R	335		RS1/16S473J
R	38		RAB4C470J	R	406		RS1/16S473J
R	39		RS1/16S0R0J	R	407		RS1/16S473J
R	40		RS1/16S470J	R	408		RS1/16S223J
R	42		RS1/16S470J	R	409		RS1/10S103J
R	43		RS1/16S102J	R	410		RS1/10S103J
R	44		RS1/16S333J	R	411		RS1/16S102J
R	45		RS1/16S104J	R	412		RS1/10S103J
R	57		RS1/16S153J	R	413		RS1/10S473J
R	58		RS1/16S473J	R	415		RS1/10S473J
R	62		RS1/16S681J	R	416		RS1/16S473J
R	64		RS1/16S0R0J	R	417		RS1/10S472J
R	101		RS1/16S102J	R	418		RS1/16S473J
R	102		RS1/16S102J	R	419		RS1/10S103J
R	103		RAB4C102J	R	420		RS1/16S750J
R	104		RAB4C102J				

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
R 421	RS1/16S750J	C 45	CEV101M16
R 422	RS1/10S0R0J	C 52	CCH1415
R 423	RAB4C102J	C 101	CKSRYB102K50
R 601	RS1/16S102J	C 102	CKSRYB102K50
R 602	RS1/16S104J	C 103	CEV101M16
R 603	RS1/16S473J	C 104	CEV470M6R3
R 605	RS1/16S0R0J	C 105	CKSRYB102K50
R 607 (UC)	RS1/16S223J	C 106	CEV4R7M25
R 607 (EW)	RS1/16S473J	C 107	CEV470M16
R 607 (ES)	RS1/16S113J	C 108	CKSRYB102K50
R 608	RS1/16S104J	C 109	CEV101M16
R 609 (UC,EW)	RS1/16S223J	C 110	CEV101M16
R 609 (ES)	RS1/16S333J	C 111	CEV101M16
R 610	RAB4C473J	C 112	CEV101M16
R 611	RS1/16S473J	C 114	CKSRYB102K50
R 612	RS1/16S473J	C 115	CKSRYB105K6R3
R 613	RS1/16S104J	C 116	CSZS330M6R3
R 614	RS1/16S104J	C 117	CFHSQ562J16
R 615	RS1/16S104J	C 118	CKSRYB102K50
R 616	RAB4C102J	C 119	CKSRYB103K50
R 617	RS1/16S0R0J	C 120	CCH1183
R 618	RS1/16S102J	C 301	CKSYB106K6R3
R 619	RS1/16S473J	C 302	CKSRYB102K50
R 620	RAB4C473J	C 303	CCSRCH471J50
R 621	RS1/16S473J	C 304	CCSRCH471J50
R 622	RS1/16S102J	C 305	CKSRYB103K50
R 623 (UC)	RS1/16S103J	C 306	CKSRYB103K50
R 624	RS1/16S102J	C 309	CCSRCH221J50
R 626	RS1/16S102J	C 310	CKSRYB104K16
R 627 (UC)	RS1/16S473J	C 311	CKSRYB103K50
R 628	RS1/16S0R0J	C 312	CKSRYB103K50
R 629	RS1/16S102J	C 324	CKSYB106K6R3
R 630	RS1/16S224J	C 325	CCSRCH220J50
R 631	RS1/16S473J	C 326	CCH1413
R 632	RS1/16S104J	C 327	CKSRYB103K50
R 633	RS1/16S473J	C 332	CKSRYB104K16
R 635	RS1/16S473J	C 337	CKSRYB105K6R3
R 636	RS1/16S471J	C 338	CKSRYB105K6R3
R 637	RAB4C102J	C 339	CCSRCH220J50
R 651	RS1/16S102J	C 344	CCH1413
R 653	RS1/16S102J	C 346	CKSRYB103K50
R 654 (EW)	RS1/16S102J	C 350	CKSRYB104K25
R 658	RS1/16S104J	C 352	CKSRYB105K6R3
R 659	RS1/16S104J	C 353	CKSRYB105K6R3
R 661	RS1/16S0R0J	C 401	CKSYB105K25
R 1301	RS1/4S511J	C 403	CKSQYB472K50
R 1302	RS1/4S511J	C 405	CKSRYB103K50
R 1303	RS1/16S685J	C 601	CKSRYB103K50
R 1304	RS1/16S105J	C 602	CKSRYB104K16
R 1305	RS1/16S103J	C 603	CKSQYB104K50
R 1306	RS1/16S393J	C 604	CEV4R7M25
CAPACITORS		C 605	CCSRCH101J50
C 30	CEV101M16	C 606	CKSRYB105K6R3
C 31	CEV101M16	C 607	CKSRYB103K50
C 32	CEV101M16	C 608	CKSYB106K6R3
C 33	CEV101M16	C 609	CKSRYB102K50
C 34	CEV101M16	C 610	CKSRYB102K50
C 35	CEV101M16	C 611	CKSRYB102K50
C 36	CKSRYB472K50	C 612	CKSRYB103K50
C 37	CKSRYB472K50	C 616	CKSRYB222K50
C 38	CEV101M16	C 1301	CKSRYB104K16
C 39	CKSQYB474K16	C 1302	CKSRYB104K16
C 40	CEV101M16	C 1303	CKSRYB104K25
C 41	CCH1413	C 1304	CKSRYB104K16
C 42	CKSRYB472K50	C 1305	CKSRYB473K50
C 43	CKSRYB472K50		
C 44	CKSRYB472K50		

====Circuit Symbol and No.====Part Name

C Unit Number : CWM7752
Unit Name : Relay Unit

MISCELLANEOUS

IC	1101	IC	BA7623F
IC	1102	IC	NJM2267V
IC	1103	IC	TC7SH32FU
IC	1104	IC	TC7S08FU
IC	1105	IC	BA7603F
IC	1106	IC	PD5582A
IC	1107	IC	TC74HC123AF
IC	1108	IC	TC7S08FU
Q	1101	Transistor	DTA114EU
Q	1102	Transistor	2SC4081
D	1101	Diode	MA142WK
D	1102	Diode	MA111
D	1103	Diode	MA111
D	1104	Diode	MA111
D	1105	Diode	MA142WK
D	1106	Diode	MA111
D	1107	Diode	UDZ4R3(B)
L	1101	Inductor-Array	CTF1421
L	1105	Inductor-Array	CTF1421
L	1108	Inductor	CTF1379
L	1109	Inductor	CTF1379
L	1110	Inductor	CTF1379
L	1111	Inductor	CTF1379
L	1112	Inductor	CTF1379
L	1118	Inductor	LCTB2R2K2125
L	1119	Inductor	LCTB2R2K2125
L	1120	Inductor	LCTB2R2K1608
L	1121	Inductor	LCTB2R2K1608
L	1122	Inductor	LCTB2R2K1608
L	1123	Inductor	LCTB2R2K2125
L	1124	Inductor	LCTA101J2520
L	1125	Inductor-Array	CTF1421
EF	1101	EMI-Filter	CCG1067
EF	1102	EMI-Filter	CCG1067

RESISTORS

R	1102	RS1/16S0R0J
R	1103	RS1/16S0R0J
R	1104	RS1/16S0R0J
R	1105	RS1/16S0R0J
R	1106	RS1/16S0R0J
R	1107	RS1/16S750J
R	1110	RS1/16S105J
R	1111	RS1/16S105J
R	1112	RS1/16S471J
R	1113	RS1/16S101J
R	1114	RS1/16S332J
R	1115	RS1/16S152J
R	1116	RS1/16S152J
R	1117	RS1/16S152J
R	1118	RS1/16S681J
R	1119	RS1/16S681J
R	1120	RS1/16S392J
R	1121	RS1/16S392J
R	1122	RS1/16S392J
R	1123	RS1/16S473J
R	1124	RS1/16S105J
R	1125	RS1/16S102J
R	1126	RS1/16S512J
R	1127	RS1/16S152J
R	1128	RS1/16S0R0J

====Circuit Symbol and No.====Part Name

R	1129	RS1/16S0R0J
R	1130	RS1/16S222J
R	1134	RS1/16S151J
R	1135	RS1/16S0R0J

CAPACITORS

C	1101	CKSRYB104K16
C	1102	CEV470M16
C	1103	CEV470M16
C	1104	CSZSR101M6R3
C	1107	CSZSR101M6R3
C	1108	CKSRYB103K50
C	1109	CKSYB106K6R3
C	1112	CSZSR101M6R3
C	1114	CEV101M16
C	1115	CEV220M6R3
C	1116	CKSQYB225K10
C	1117	CKSRYB103K50
C	1118	CKSYB106K6R3
C	1121	CKSRYB105K6R3
C	1123	CKSRYB105K6R3
C	1124	CKSRYB104K16
C	1125	CKSRYB104K16
C	1126	CKSRYB104K16
C	1127	CKSYB106K6R3
C	1128	CKSRYB103K50
C	1129	CKSRYB105K6R3
C	1130	CKSRYB105K6R3
C	1131	CKSRYB105K6R3
C	1132	CKSRYB103K50
C	1133	CEV101M16
C	1134	CKSRYB103K50
C	1135	CCSRCH471J50
C	1136	CCSRCH471J50
C	1137	CKSRYB105K6R3
C	1138	CKSRYB105K6R3
C	1139	CCSRCH101J50
C	1140	CKSRYB105K6R3
C	1141	CKSRYB104K16

Keyboard Unit

Consists of
Inverter PCB
Grille PCB

D E Unit Number : CWM7747(UC,ES)
CWM7746(EW)
Unit Name : Keyboard Unit

MISCELLANEOUS

IC	1901	IC	TSOP1840SB1
IC	2941	IC	OZ960IS
IC	2942	IC	TA78L05F
Q	1901	Transistor	UMD2N
Q	1902	Transistor(EW)	2SC2412K
Q	1903	Transistor(EW)	2SC2412K
Q	1904	Transistor(EW)	2SC2412K
Q	2941	Transistor	2SC4081
Q	2942	Transistor	DTA144EE
Q	2943	FET	SI6544DQ
Q	2944	FET	SI6544DQ
D	1901	Diode	MA111
D	1902	Diode	MA111
D	1903	Diode	MA111
D	1904	LED	CL170SRCD

====Circuit Symbol and No.==Part Name

Part No.

D	1906	LED	CL170PGCD
D	1909	LED	CL170PGCD
D	2940	Diode	UDZ6R8(B)
D	2941	Diode	HZU6R2(B3)
D	2942	Diode	HZU6R2(B3)
D	2943	Diode	MA143
D	2944	Diode	MA143
D	2950	Diode	UDZ5R6(B)
D	2951	Diode	1SS355
T	2941	Transformer	CTT1102
S	1901	Spring Switch(Detach sense)	CSN1046
S	1902	Push Switch(Reset)	CSG1111
S	1903	Push Switch(UC,ES)(V.SRC)	CSG1112
S	1903	Push Switch(EW)(V.SRC)	CSG1113
S	1905	Push Switch(UC,ES)(RGB)	CSG1112
S	1905	Push Switch(EW)(RGB)	CSG1113
S	2942	Push Switch(DOWN)	CSG1112
S	2943	Push Switch(MENU)	CSG1112
S	2944	Push Switch(UP)	CSG1112

RESISTORS

R	1901		RS1/16S100J
R	1902		RS1/16S472J
R	1903		RS1/16S271J
R	1905		RS1/16S181J
R	1906		RS1/16S181J
R	1908	(EW)	RS1/16S131J
R	1913		RS1/16S123J
R	1914		RS1/16S123J
R	1915		RS1/16S473J
R	1916		RS1/16S123J
R	1917		RS1/16S183J
R	1918		RS1/16S393J
R	1919		RS1/16S124J
R	1920	(EW)	RS1/16S101J
R	1921	(EW)	RS1/16S151J
R	1922	(EW)	RS1/16S472J
R	1923	(EW)	RS1/16S153J
R	1924	(UC,ES)	RS1/16S0R0J
R	1925	(EW)	RS1/16S472J
R	1926	(EW)	RS1/16S153J
R	1927		RS1/16S0R0J
R	1928	(EW)	RS1/16S0R0J
R	1930		RS1/16S271J
R	1931		RS1/16S271J
R	1935		RS1/16S181J
R	1936		RS1/16S181J
R	1937		RS1/16S181J
R	1938		RS1/16S181J
R	1939		RS1/16S181J
R	1940		RS1/16S181J
R	1941	(EW)	RS1/16S131J
R	1942	(EW)	RS1/16S131J
R	1943	(EW)	RS1/16S131J
R	1959		RS1/16S271J
R	2940		RS1/16S472J
R	2941		RS1/16S104J
R	2942		RS1/16S334J
R	2943		RS1/16S0R0J
R	2944		RS1/16S473J
R	2945		RS1/16S102J
R	2946		RS1/16S513J
R	2947		RS1/16S105J
R	2948		RN1/16SE6802D
R	2949		RS1/16S103J
R	2951		RS1/16S103J
R	2953		RS1/16S471J
R	2955		RS1/16S393J
R	2958		RS1/10S122J
R	2966		RS1/16S153J

====Circuit Symbol and No.==Part Name

Part No.

CAPACITORS

C	1901		CKSRYB104K16
C	1902		CKSRYB105K6R3
C	2941		CKSRYB104K16
C	2942		CKSRYB105K6R3
C	2943		CKSRYB103K50
C	2944		CKSRYB105K6R3
C	2945		CKSRYB474K10
C	2946		CKSRYB105K6R3
C	2947		CKSRYB104K16
C	2948		CKSRYB222K50
C	2949		CKSRYB152K50
C	2952		CKSRYB103K50
C	2953		CKSRYB473K50
C	2954		CCSRCH221J50
C	2955		CKSRYB473K50
C	2956	10μF	CCG1150
C	2957	10μF	CCG1150
C	2958		CKSYB225K16
C	2959	22pF	CCG1140
C	2961		CKSRYB273K25

Encoder Unit

Consists of
Encoder PCB
SW PCB



Unit Number : CWM7620


Unit Name : Encoder Unit

MISCELLANEOUS

IC	2801	IC	TA7806S
IC	2802	IC	TA78L05F
IC	2803	IC	BA6951FS
IC	2804	IC	TC7S14FU
IC	2805	Photo-interrupter	GP1S25
IC	2806	Photo-interrupter	GP1S25
IC	2807	IC	TC7W14FU
Q	2801	Transistor	2SA1615-Z
Q	2802	Transistor	DTC114EK
Q	2803	Transistor	DTC144EK
Q	2804	Transistor	DTC144EK
D	2804	Diode	UDZS3R9(B)
L	2801	Inductor	LCYA150K3225
L	2802	Inductor	LCTB150K2125
L	2803	Inductor	LCYA150K3225
S	2801	Spring Switch(DEG0)	CSN1053

RESISTORS

R	2800		RS1/10S0R0J
R	2801		RS1/16S153J
R	2802		RS1/4S751J
R	2803		RS1/4S751J
R	2804		RS1/16S1201F
R	2805		RS1/16S3000F
R	2807		RS1/16S563J
R	2808		RS1/4S2R0J
R	2809		RS1/16S221J
R	2811		RS1/16S273J
R	2813		RS1/16S471J
R	2814		RS1/10S391J
R	2815		RS1/16S473J
R	2816		RS1/4S2R0J
R	2817		RS1/16S0R0J

====Circuit Symbol and No.==Part Name		Part No.	====Circuit Symbol and No.==Part Name		Part No.
R 2818		RS1/16S103J	Q 282	IC	TC7W14FU
R 2819		RS1/16S0R0J	Q 291	IC	TC7SET08FU
R 2820		RS1/16S0R0J	Q 292	IC	TC7S14FU
R 2821		RS1/16S473J	Q 293	IC	TC7S14FU
R 2822		RS1/16S0R0J	Q 501	IC	TA75072F
R 2823		RS1/10S391J	Q 502	Transistor	2SC3265
R 2824		RS1/16S473J	Q 503	Transistor	2SA1298
R 2825		RS1/16S0R0J	Q 504	Transistor	2SC3265
R 2829		RS1/16S103J	Q 505	Transistor	2SA1298
R 2830		RS1/16S103J	Q 651	IC	AN6308S
R 2831		RS1/16S1501F	Q 652	Transistor	2SC2712
R 2832		RS1/16S153J	Q 801		
R 2833		RS1/16S272J	Q 802		
CAPACITORS			Q 803		
C 2801		CKSQYB104K25	D 1	Diode	1SV231
C 2802		CEV101M16	D 2		
C 2803		CKSRYB104K16	D 3		
C 2804		CKSRYB104K16	D 4		
C 2805		CSZSR100M16	D 5		
C 2806		CKSRYB104K16	D 801		
C 2807		CEV100M16	D 802	Diode	SB05-05CP
C 2808		CEV220M6R3	D 803	Diode	1SS250
C 2809		CKSRYB104K16	D 851	Diode	1SS250
C 2810		CCSRCH330J50	D 852		
C 2811		CKSRYB104K16	D 853		
C 2812		CKSRYB104K16	L 1		
C 2813		CKSRYB104K16	L 201		
C 2814		CKSRYB104K16	L 202		
C 2815		CKSRYB104K16	L 203		
C 2816		CEV100M16	L 204		
C 2818		CKSYB106K6R3	L 205		
C 2819		CKSRYB104K16	L 277		
C 2820		CKSRYB104K16	L 278		
C 2821		CKSRYB104K16	L 279		
C 2824		CKSRYB104K16	L 601		
C 2825		CCSRCH102J50	L 801	Inductor	CTF1504
C 2826		CCSRCH102J50	L 852	Inductor	CTF1504
C 2827		CKSRYB104K16	L 853		
 Unit Number : CWX2565			JP 1		RS1/16S0R0J
Unit Name : LCD Module			JP 2		RS1/16S0R0J
MISCELLANEOUS			JP 3		RS1/16S0R0J
Q 1			JP 7		RS1/16S0R0J
Q 2	IC	NJM2107F	JP 8		RS1/16S0R0J
Q 3			JP 40		RS1/16S0R0J
Q 4	IC	TC7SH04FU	JP 41		RS1/16S0R0J
Q 5	IC	TC7SH04FU	JP 42		RS1/16S0R0J
Q 6	IC	TC7S66FU	JP 803		RS1/16S0R0J
Q 7	IC	TC7SET08FU	JP 804		RS1/16S0R0J
Q 201	IC	IR3Y29B	JP 806		RS1/16S0R0J
Q 202			JP 808		RS1/16S0R0J
Q 203			JP 809		RS1/16S0R0J
Q 204			JP 810		RS1/16S0R0J
Q 205	Transistor	2SA1162	JP 851		RS1/16S0R0J
Q 206			JP 852		RS1/16S0R0J
Q 207	IC	TC7S66FU	JP 853		RS1/16S0R0J
Q 208	IC	TC7S66FU	JP 860		RS1/8S0R0J
Q 210			JP 861		RS1/8S0R0J
Q 211	IC	TC7S66FU	F 801	Fuse 1A	CEK1191
Q 212	IC	TC7S66FU	B 801		
Q 271	IC	TC74HC4053AFT	B 802		
Q 272	Transistor	2SA1162	RM 8		
			X 201		
			X 202		
			FL 1		
			T 801		

====Circuit Symbol and No.==Part Name	Part No.	====Circuit Symbol and No.==Part Name	Part No.
VR 1		R 235	RS1/8S680J
VR 201		R 236	RS1/8S680J
VR 202		R 237	RS1/8S680J
VR 203		R 238	RS1/16S681J
VR 204		R 239	RS1/16S561J
VR 205		R 240	RS1/16S1802F
VR 206		R 242	RS1/16S624J
VR 501		R 243	RS1/16S274J
VR 502		R 244	RS1/16S334J
VR 801		R 245	RS1/16S563J
RESISTORS		R 246	RS1/16S101J
R 2	RS1/16S331J	R 247	RS1/16S151J
R 3	RS1/16S332J	R 248	
R 4	RS1/16S101J	R 249	
R 5	RS1/16S182J	R 250	
R 6	RS1/16S153J	R 251	RS1/16S474J
R 7	RS1/16S105J	R 260	RS1/16S102J
R 8	RS1/16S683J	R 261	RS1/16S103J
R 9	RS1/16S153J	R 262	RS1/16S101J
R 10	RS1/16S683J	R 272	RS1/16S152J
R 11	RS1/16S472J	R 273	RS1/16S681J
R 12	RS1/16S472J	R 274	RS1/16S183J
R 13	RS1/16S473J	R 275	RS1/16S221J
R 14	RS1/16S362J	R 276	RS1/16S221J
R 15	RS1/16S303J	R 277	RS1/16S221J
R 17	RS1/16S472J	R 278	RS1/16S104J
R 23	RS1/16S0R0J	R 279	RS1/16S104J
R 27	RS1/16S0R0J	R 280	RS1/16S104J
R 28	RS1/16S102J	R 285	RS1/16S101J
R 30	RS1/16S0R0J	R 287	RS1/16S682J
R 31	RS1/16S0R0J	R 291	RS1/16S101J
R 42	RS1/16S0R0J	R 292	RS1/16S621J
R 44	RS1/16S102J	R 293	RS1/16S152J
R 45	RS1/16S102J	R 501	RS1/16S5602F
R 46	RS1/16S0R0J	R 502	RS1/16S2701F
R 47	RS1/16S0R0J	R 503	RS1/16S103J
R 61	RS1/16S101J	R 504	RS1/16S911J
R 63	RS1/16S101J	R 505	RS1/16S1002F
R 64	RS1/16S101J	R 506	RS1/16S2201D
R 201	RS1/16S563J	R 507	RS1/16S101J
R 203	RS1/16S152J	R 508	RS1/16S103J
R 206	RS1/16S512J	R 509	RS1/16S333J
R 209	RS1/16S105J	R 510	RS1/16S333J
R 210	RS1/16S152J	R 511	RS1/16S103J
R 211	RS1/16S472J	R 512	RS1/16S682J
R 212	RS1/16S331J	R 513	RS1/16S183J
R 213	RS1/16S512J	R 514	RS1/16S101J
R 214	RS1/16S153J	R 515	RS1/16S123J
R 215	RS1/16S562J	R 516	RS1/16S432J
R 216	RS1/16S152J	R 517	RS1/16S0R0J
R 217	RS1/16S331J	R 518	RS1/16S101J
R 218	RS1/16S3002F	R 651	RS1/16S151J
R 219	RS1/16S2002F	R 652	RS1/16S151J
R 220	RS1/16S2402F	R 653	RS1/8S750J
R 221	RS1/16S2702F	R 654	RS1/8S750J
R 222	RS1/16S273J	R 655	RS1/16S332J
R 223	RS1/16S273J	R 656	RS1/16S751J
R 224	RS1/16S273J	R 802	
R 225	RS1/16S273J	R 803	RS1/16S1502F
R 226	RS1/16S473J	R 804	RS1/16S203J
R 227	RS1/16S153J	R 805	RS1/16S823J
R 228	RS1/16S473J	R 851	RS1/16S105J
R 229	RS1/16S153J	R 852	RS1/16S564J
R 230	RS1/16S101J	R 853	RS1/16S562J
R 231	RS1/16S101J	R 854	RS1/8S0R0J
R 234	RS1/16S102J		

====Circuit Symbol and No.===Part Name	Part No.	====Circuit Symbol and No.===Part Name	Part No.
CAPACITORS			
C 1	CCSRCH470J50	C 228	CKSRYP103K50
C 2	CCSRCH101J50	C 229	CKSRYP103K50
C 3	CCSRCH102J25	C 230	CKSRYP103K50
C 4	CKSRYP104K16	C 231	CCSRCH681J50
C 5	CKSRYP104K16	C 232	CCSRCH331J50
C 6	CCSRCH681J50	C 234	CSZSR68M16
C 7	CKSRYP104K16	C 235	CKSRYP103K50
C 8	CKSRYP104K16	C 236	CKSRYP154K10
C 9	CKSRYP104K16	C 237	CKSRYP104Z25
C 10	CKSRYP104K16	C 238	CSZSR68M16
C 18	CKSRYP224Z16	C 239	CSZSR68M16
C 19	CKSRYP224Z16	C 240	CKSRYP104Z25
C 20	CKSRYP224Z16	C 241	CKSRYP104Z25
C 21	CKSRYP224Z16	C 242	CKSRYP104Z25
C 22	CKSRYP224Z16	C 243	CKSQYB474K25
C 23	CKSRYP224Z16	C 246	CKSYB225K16
C 24	CKSRYP224Z16	C 247	CKSRYP103K50
C 25	CKSRYP224Z16	C 248	CCSRCH8R0D50
C 26	CKSRYP224Z16	C 249	CCSRCH4R0C50
C 27	CKSRYP104Z25	C 250	CKSRYP224Z16
C 28	CKSRYP104Z25	C 251	CKSRYP224Z16
C 29	CKSRYP224Z16	C 253	CSZSR47M20
C 30	CKSRYP224Z16	C 254	CSZSR68M16
C 31	CKSRYP224Z16	C 255	CSZSR68M16
C 32	CKSRYP224Z16	C 271	CKSRYP104Z25
C 60	CKSRYP103K50	C 275	CCSRCH390J50
C 61	CKSRYP103K50	C 276	CCSRCH390J50
C 62	CKSRYP103K50	C 277	CCSRCH390J50
C 63	CKSRYP103K50	C 284	CCSRCH221J50
C 64	CKSRYP103K50	C 285	CKSRYP224Z16
C 66	CKSRYP103K50	C 291	CCSRCH100D50
C 67	CKSRYP103K50	C 292	CCSRCH561J50
C 68	CKSRYP103K50	C 293	CKSRYP224Z16
C 69	CKSRYP103K50	C 294	CKSRYP224Z16
C 70	CKSRYP103K50	C 296	CKSRYP224Z16
C 71	CKSRYP103K50	C 501	CKSRYP103K50
C 72	CKSRYP103K50	C 502	CKSYB106K6R3
C 73	CKSRYP103K50	C 503	CKSRYP103K50
C 201	CKSRYP105Z10	C 504	CKSYB106K6R3
C 202	CCSRCH220J50	C 505	CSZSR10M35
C 203	CCSRCH680J50	C 651	CKSYB106K6R3
C 204	CKSYB106K6R3	C 652	CKSYB106K6R3
C 205	CCSRCH681J50	C 653	CKSRYP104Z25
C 206	CKSRYP104Z25	C 654	CKSYB106K6R3
C 207	CCSRCH560J50	C 801	
C 208	CKSRYP103K50	C 803	CKSRYP473K16
C 209	CKSRYP473K16	C 804	CSZS2R2M16
C 210	CCSRCH820J50	C 805	CKSYB475K16
C 211	CKSRYP103K50	C 806	
C 212	CKSRYP103K50	C 808	CCSRCH101J50
C 213	CKSRYP105Z10	C 809	CCH1372
C 214	CKSRYP104Z25	C 814	CCSRCH330J50
C 215	CCSRCH6R0D50	C 851	CSZSR4R7M25
C 216	CKSQYB474K25	C 853	CSZSR22M35
C 217	CKSRYP103K50	C 854	CSZSR22M35
C 218	CCSRCH5R0C50	C 855	CSZSR22M35
C 219	CKSRYP104Z25	C 856	CCSRCH471J50
C 220	CSZS1R0M25	C 857	CSZSR22M35
C 221	CSZS1R0M25	Miscellaneous Parts List	
C 222	CSZSR47M20	M 1	Motor Unit(Drive Motor)
C 223	CKSRYP105Z10		CXB7612
C 224	CSZS1R0M25		
C 225	CKSRYP103K50		
C 226	CKSRYP103K50		
C 227	CKSRYP103K50		

6. ADJUSTMENT

There is no information to be shown in this chapter.

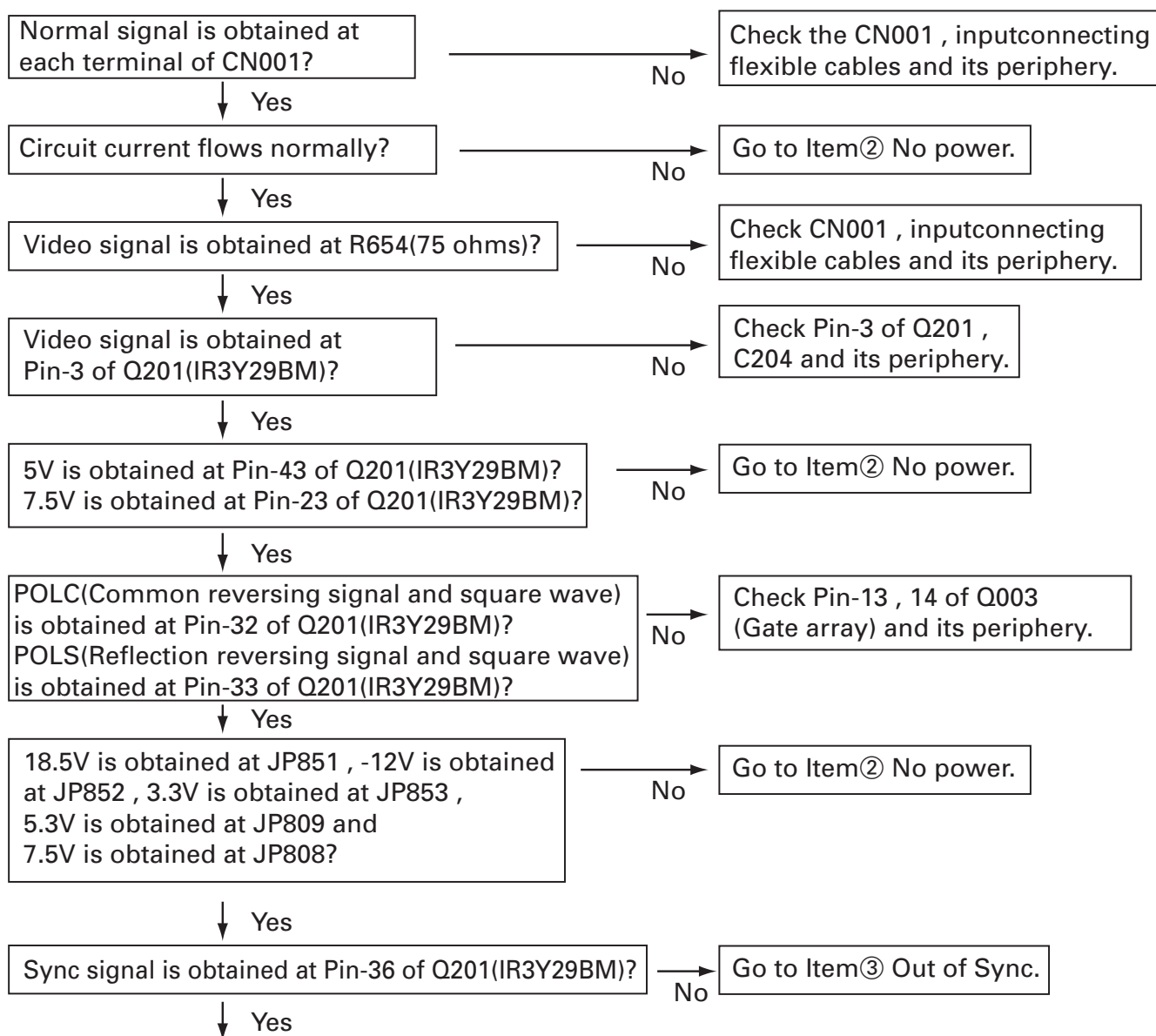
7. GENERAL INFORMATION

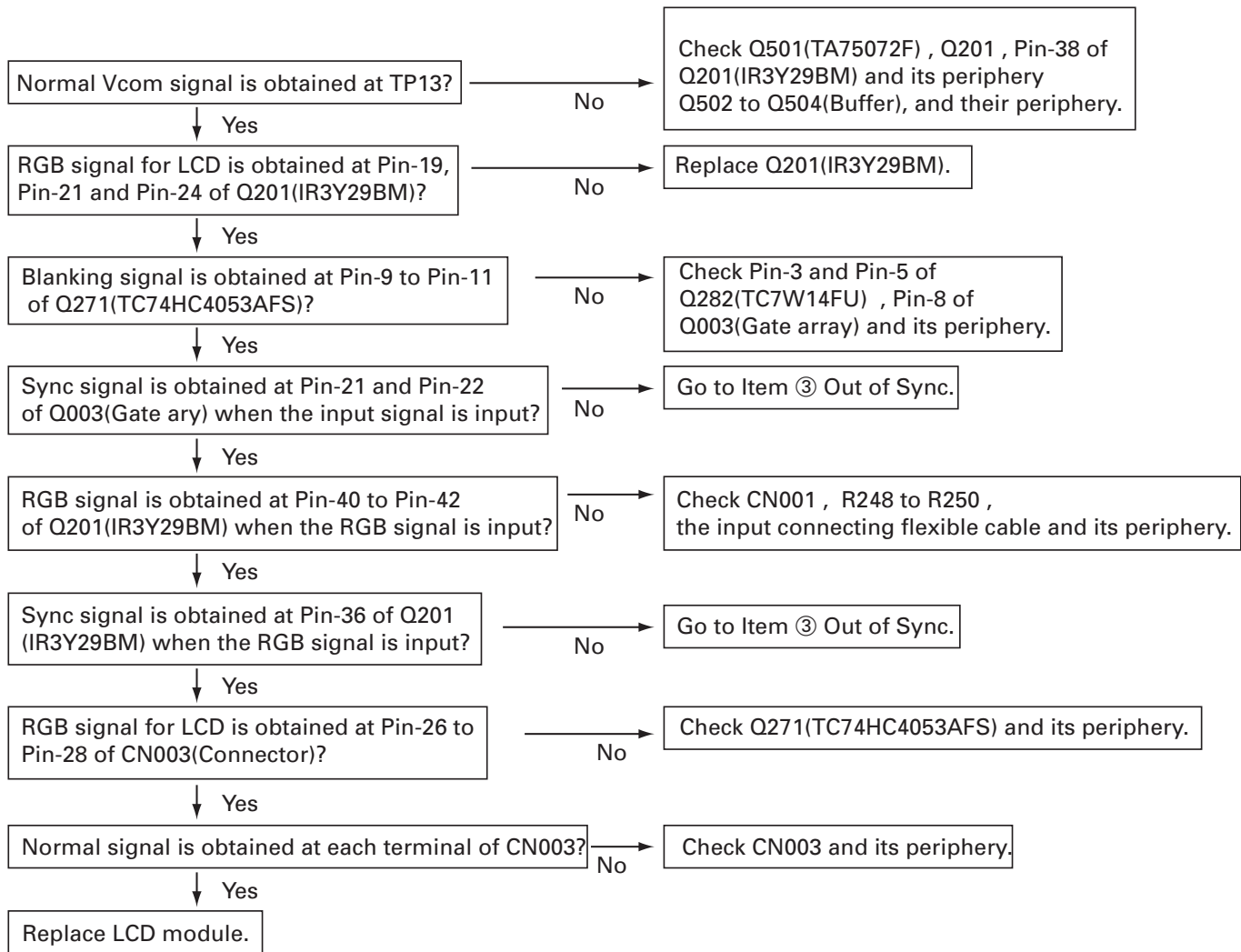
7.1 DIAGNOSIS

7.1.1 TROUBLESHOOTING

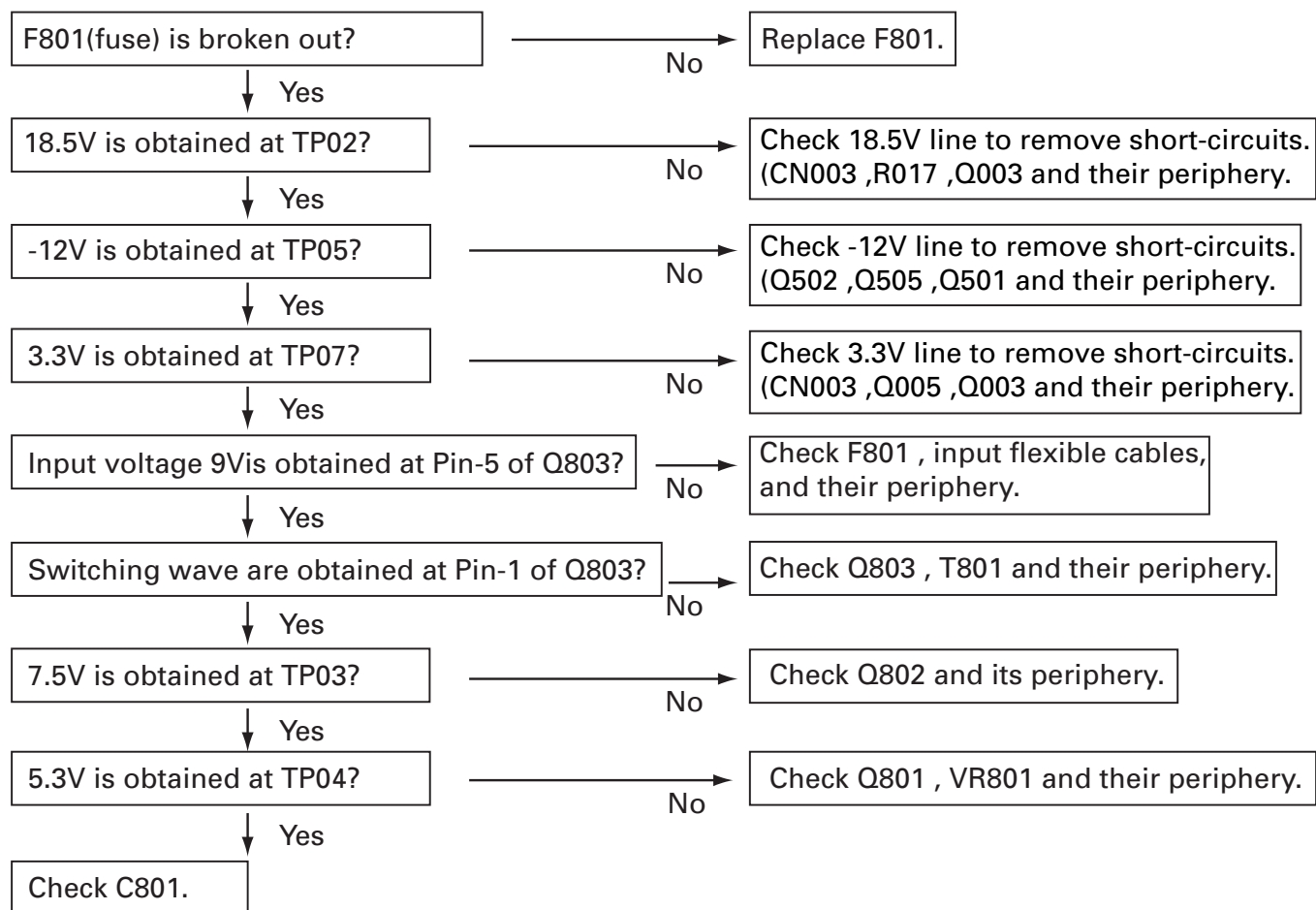
● LCD module troubleshooting

① No images

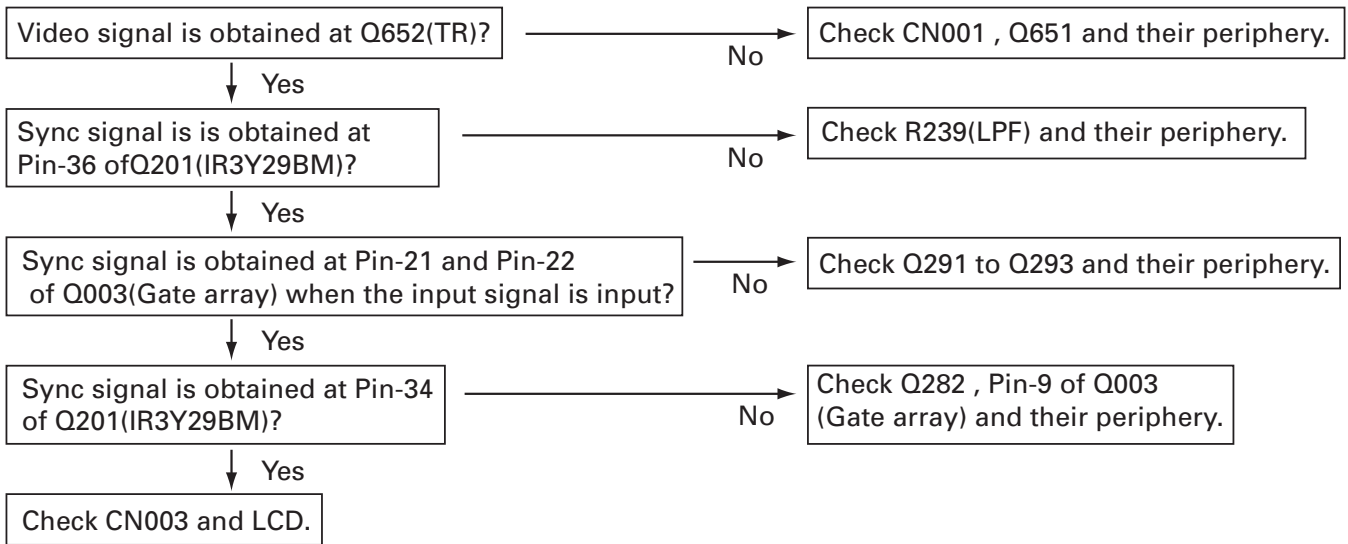




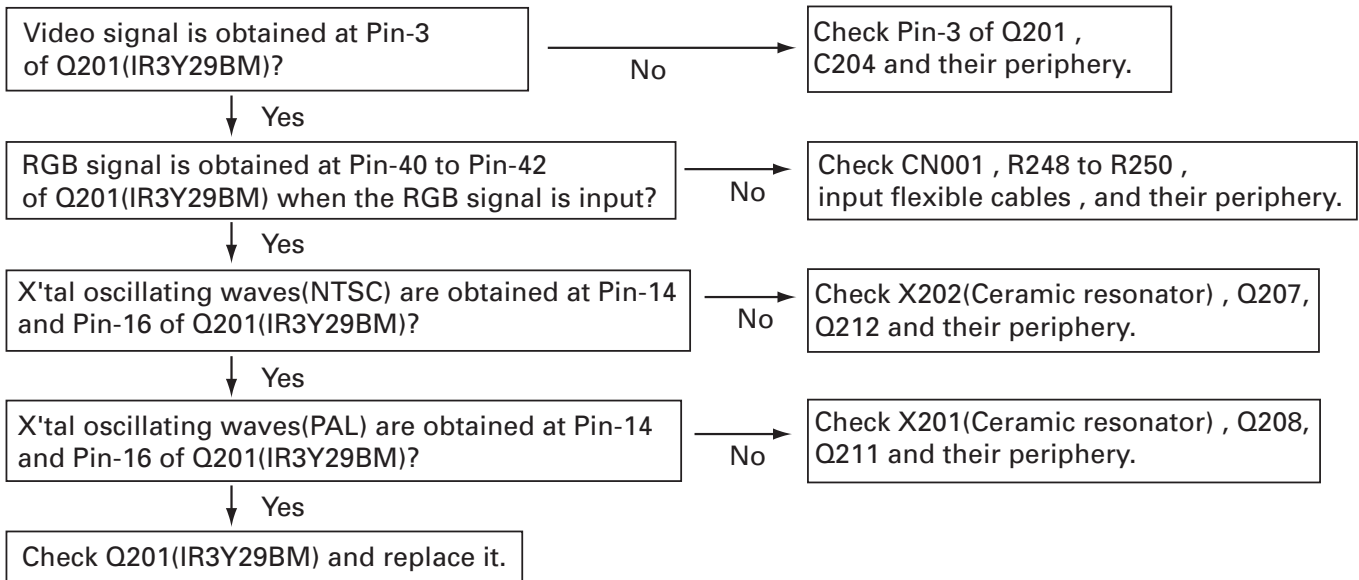
②No power



③Out of Sync



④No color



7.1.2 DISASSEMBLY

● Cautions for disassembling and reassembling

1. When pulling chassis and case unit apart, remove gear, remove five screws, and then remove set of shaft unit before sliding case unit out. When reassembling, the switch on the SW PCB become caught by the parts, Chassis so keep the two screws of A as well as the SW PCB removed while reinstalling the case unit.

2. When reinstalling the shaft unit, please make sure that the teeth on the right and left side are aligned properly.

3. Please do not attempt to operate the drive mechanism when the grill is not attached (as doing so can cause the guides A and B to be caught by the edge of the chassis, resulting in damage to these parts).

4. Please remember to reapply grease on applicable parts, when servicing gears and related parts.

Gears : GEM1013(Gear)

GGM1034(Rack and all boards)

5. Please be careful, when reassembling the frame that the chassis is not spread open too widely.

Further, please be careful that damage or scratches to the monitor or grill does not occur (it may be advisable to apply protective tapes on these parts, making sure that the tape does not hinder the drive mechanism's operation).

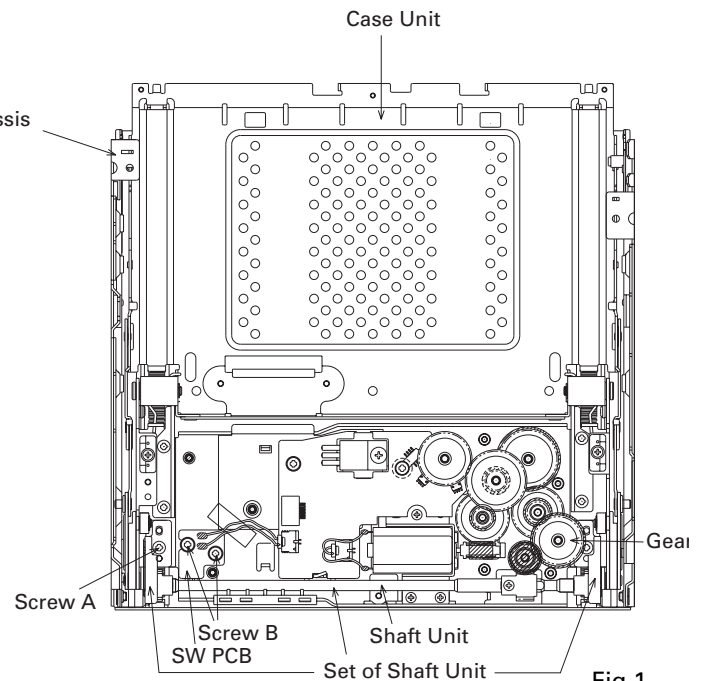


Fig.1

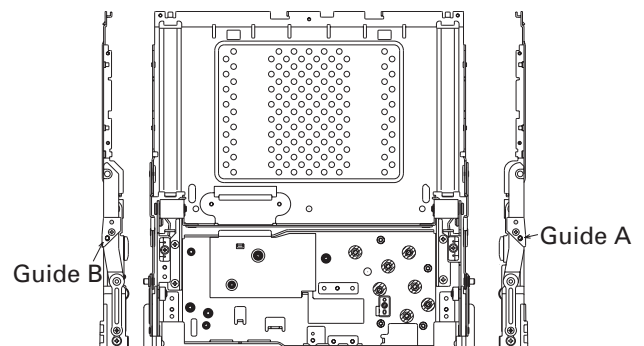


Fig.2

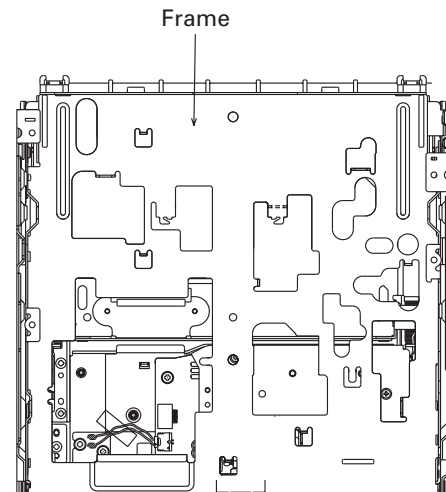
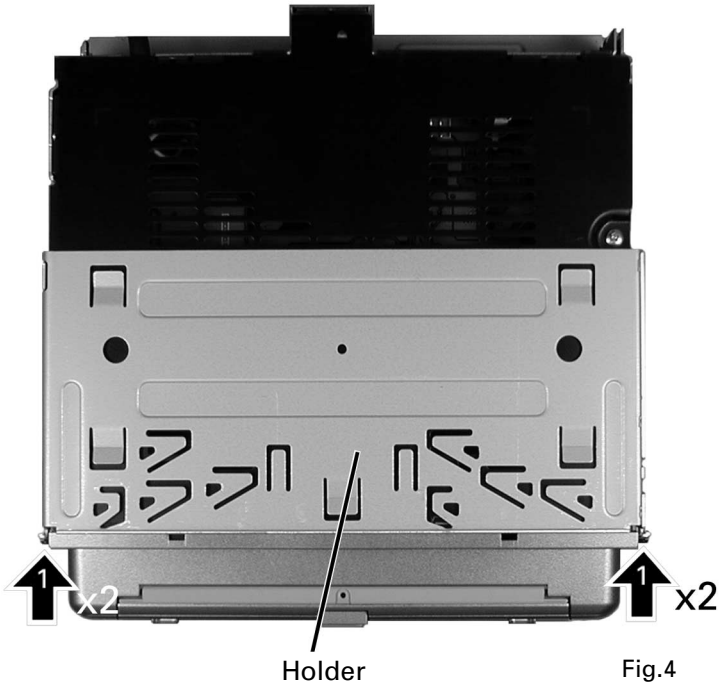


Fig.3

● Removing the Holder (Fig.4)

- ➡1 Remove the four screws and then remove the Holder.

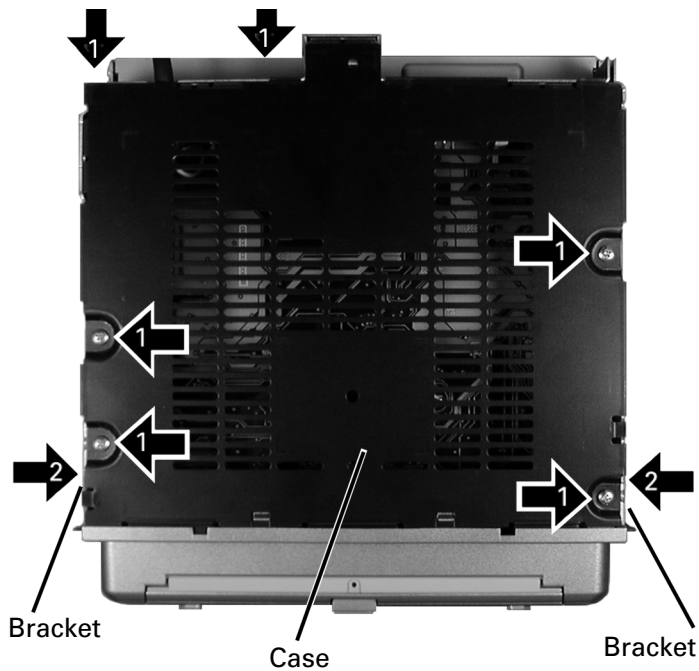


● Removing the Case (Fig.5)

- ➡1 Remove the six screws and then remove the Case.

● Removing the Bracket (Fig.5)

- ➡2 Remove the two screws and then remove the two Brackets.



● Removing the Grille Assy (Fig.6)

- ➡ 1 Remove the two screws, remove the connector and then remove the Grille Assy.

● Removing the Control PCB (Fig.6)

- ➡ 2 Straight the tabs at six locations indicated.
- ➡ 3 Remove the screw.

Disconnect the connector and then remove the Control PCB.

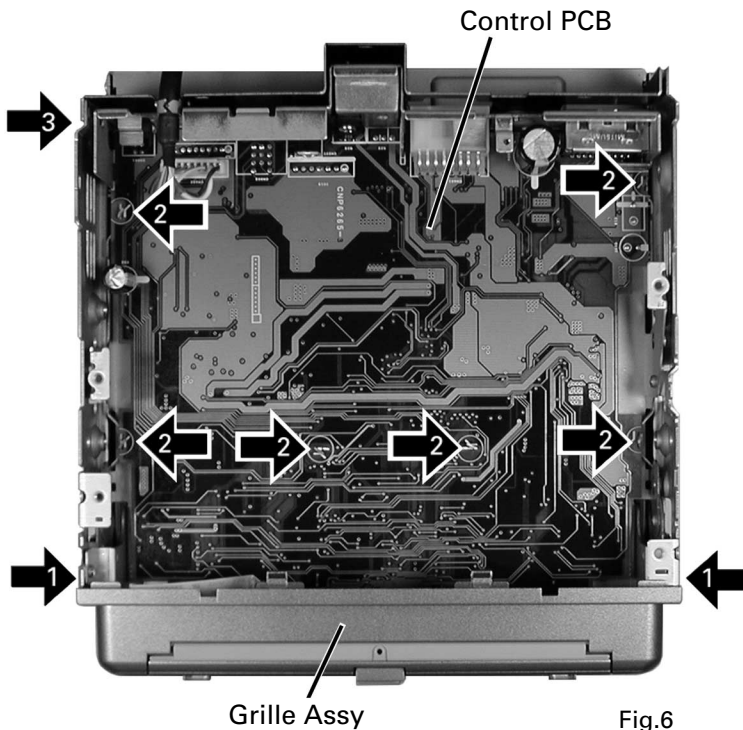


Fig.6

● Removing the Frame (Fig.7)

- ➡ 1 Remove the eight screws and then remove the Frame.

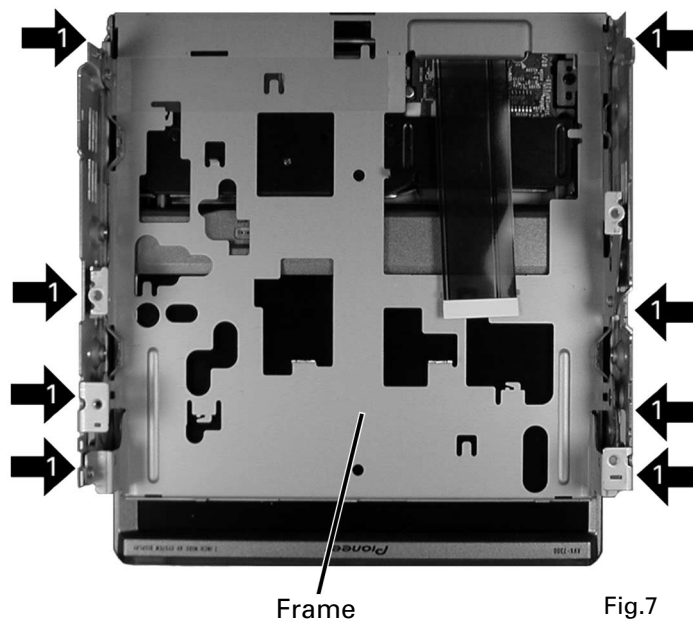


Fig.7

● Pull out the Display Assy (Fig.8)

- ➡ 1 Remove the four and two screws, remove the two covers.
- ➡ 2 Remove the gear.
- ➡ 3 Pull out the Display Assy.

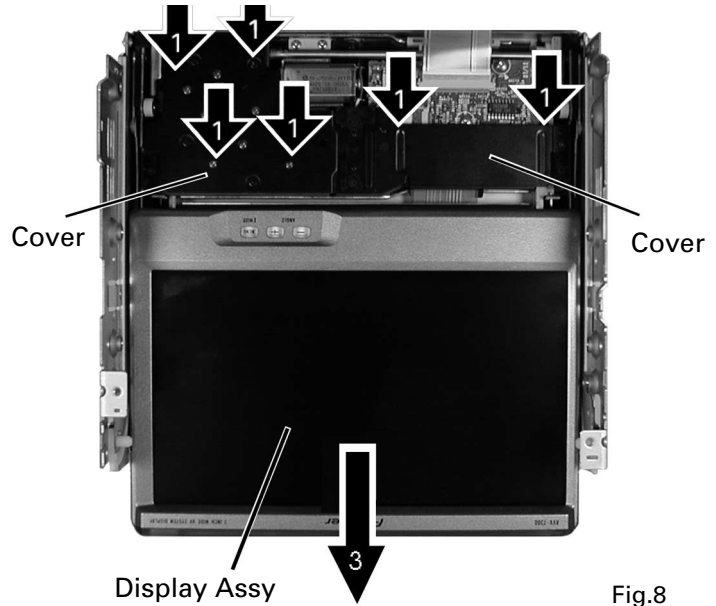
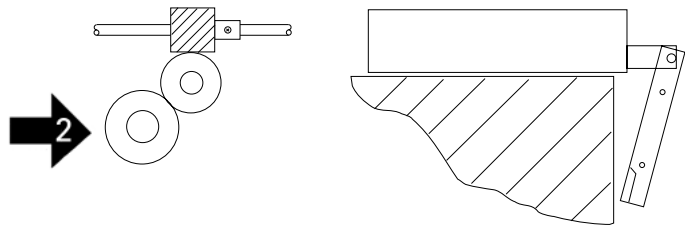


Fig.8



Display assy becomes such a condition.

● Removing the LCD Module (Fig.9)

- ➡ 1 Remove the three screws and then remove the Cover.
- ➡ 2 Remove the four screws.

Disconnect the connector and then remove the LCD Module.

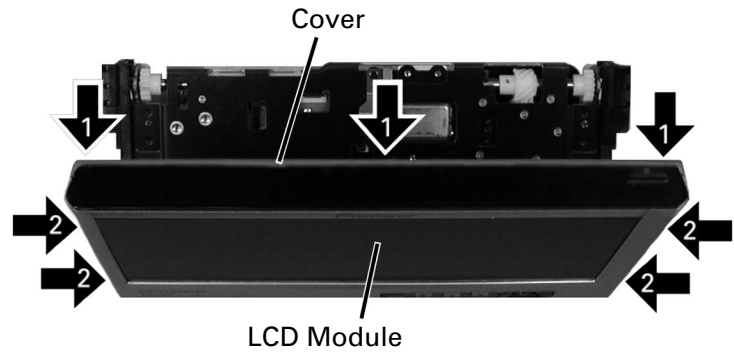
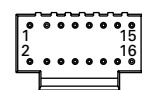
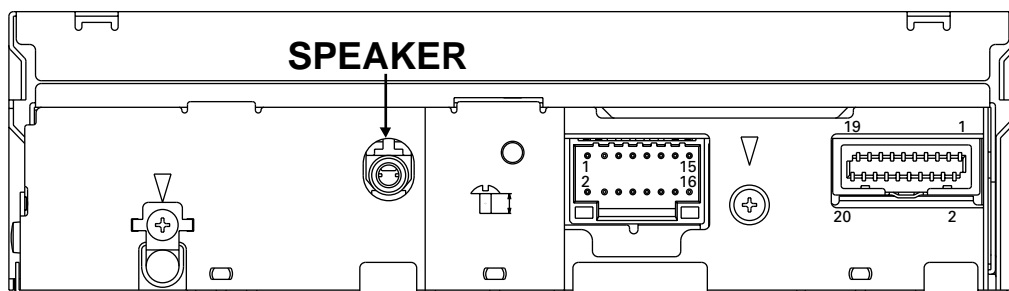
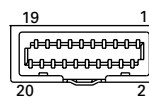


Fig.9

7.1.3 CONNECTOR FUNCTION DESCRIPTION



- 1 : B.U.
- 2 : GND
- 3 : ILM
- 4 : NC
- 5 : ACC
- 6 : P.B.
- 7 : NC
- 8 : NC
- 9 : NC
- 10 : NC
- 11 : V.IN
- 12 : V.IN_G
- 13 : NC
- 14 : NC
- 15 : NC
- 16 : NC



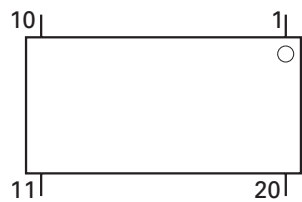
- 1 : ANR
- 2 : ANG
- 3 : ANB
- 4 : GNDSIG
- 5 : CSYNC
- 6 : NC
- 7 : NC
- 8 : MOREM
- 9 : PRH
- 10 : PRV
- 11 : ILM
- 12 : DSSENS
- 13 : SP+
- 14 : ACONT
- 15 : GNDA
- 16 : SWACC5
- 17 : PWRVI
- 18 : PWRFL
- 19 : SP-
- 20 : GNDFL

7.2 IC

● Pin Functions(PD5582A)

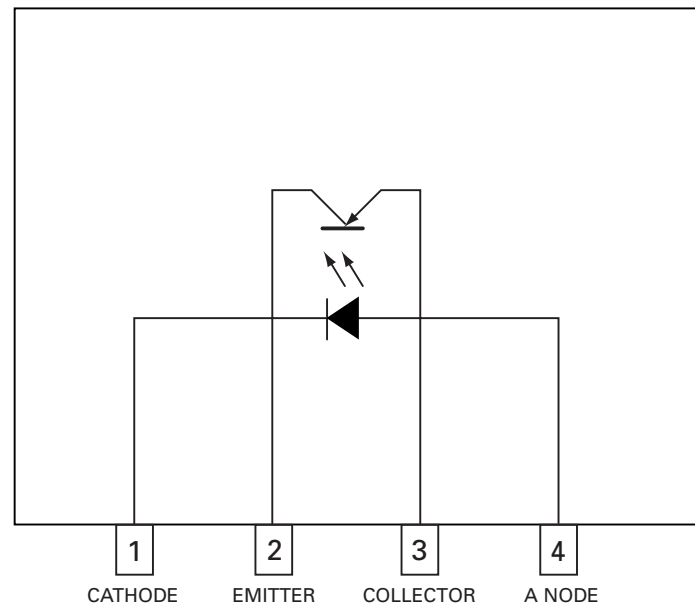
Pin No.	Pin Name	I/O	Function and Operation
1	OSC1	I	External terminal of oscillator circuit for display
2	OSC2	O	External terminal of oscillator circuit for display
3	CS	I	Chip select input
4	SCK	I	Serial clock input
5	SI	I	Serial data input
6	AC	I	Auto clear input
7-10	P6-P9	O	Port output
11	VSS		GND
12	P0	O	Port output
13	P1/R	O	Port output or R output
14	P2	O	Port output
15	P3/G	O	Port output or G output
16	P4	O	Port output
17	P5/B	O	Port output or B output
18	HOR	I	Horizontal synchronous signal input
19	VERT	I	Vertical synchronous signal input
20	VDD		Positive power supply terminal

*PD5582A

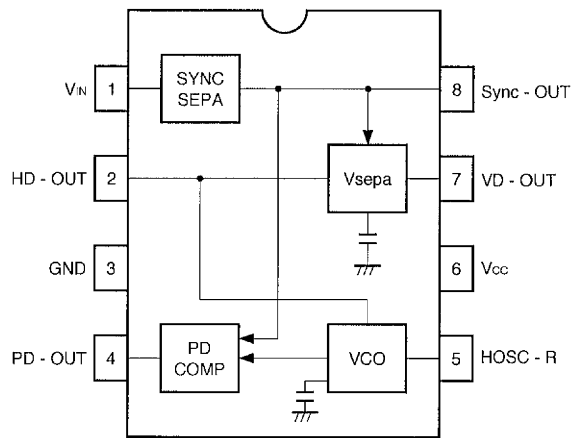


IC's marked by * are MOS type.
Be careful in handling them because they are very liable to be damaged by electrostatic induction.

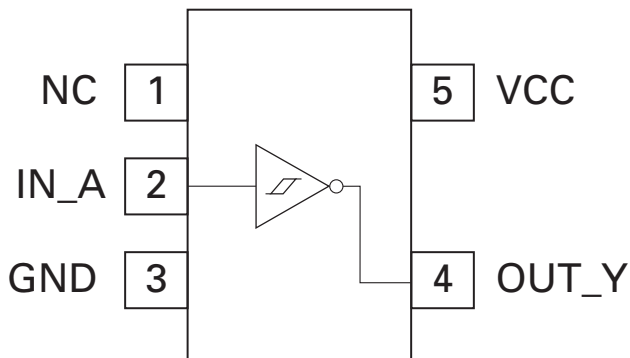
GP1S25



BA7071F(EW,ES)



*TC7S14FU

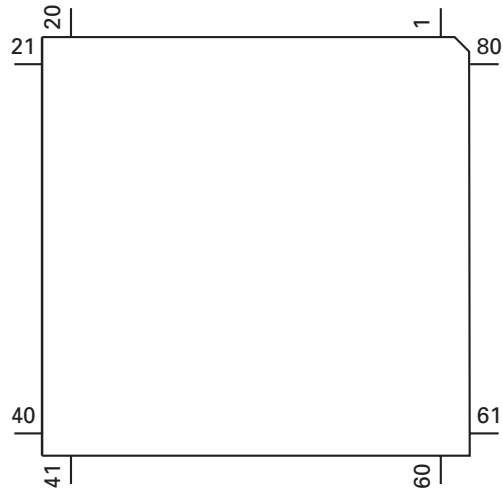


● Pin Functions (PE5230A)

Pin No.	Pin Name	I/O	Format	Function and Operation
1	MODEL2	I		Model select analog input
2,3	NC			Not used
4	AVSS			GND
5	DIMMER		C	Dimmer control output
6	ADPOW	O	C	ADPOWER control output
7	AVREF1			D/A converter reference voltage (Connects to VDD)
8	ROMDATA	O	C	Data output
9	ROMCLK	O	C	Clock output
10	ROMCS	O	C	Chip select output
11	DOTCON	O	C	OSD dot control output
12	OSDDT	O	C	OSD data output
13	OSDCK	O	C	OSD clock output
14	OSDCS	O	C	OSD chip select
15	OSDBOUT	O	C	OSD paint screen output
16	TDI/FLDI	I	C	Chip test/Data input for flash
17	TDO/FLDO	O	C	Chip test/Data output for flash
18	TCK/FLCK	O	C	Chip test/Clock for flash
19-21	NC			Not used
22	MTR1	O	C	Storage motor changeover/brake-mode designating output 1
23	MTR2	O	C	Storage motor changeover/brake-mode designating output 2
24	MTRPW	O	C	Flap motor driver power switch output
25,26	NC			Not used
27	DACDI	O	C	DAC data output
28	DACCLK	O	C	DAC clock output
29	DACLD	O	C	DAC code output
30	PLSENSE0	I	C	Plus sense 0
31	PLSENSE1	I	C	Plus sense 1
32	DEG0SW	I	C	Detection sense SW input of 0 in angle
33	VSS			GND
34	PWSENS	I	C	Navigation/R513 power "ON" input
35	PWSAVE	O	C	Power save output
36	IPAUTO	I	N	DVDSIP synchronization information
37	ISENS	I	N	Illumination sensor input
38	DLED	O	N	Burglar alarm LED driving output
39	SWVDD	O	N	Remote controller power and external light sensing power outputs
40	BLTPW	O	C	LCD backlight output
41	VPOWER	O	C	Video circuit power output
42	NC			Not used
43	MONFLAME	O	C	Monitor frame control output (NTSC/PAL)
44	RGBCOM	O	C	RGB/COMPOSIT select output
45	PEEOUT	O	C	PEE output
46	MODE2	O	C	Display mode changeover output 2
47	MODE3	O	C	Display mode changeover output 3
48	VSEL1	O	C	Change output in COMPOSIT
49	VSEL2	O	C	DVDS compulsion selection change output in COMPOSIT
50	MODE1	O	C	Display mode changeover output 1
51	DUALILM	O	C	Dual illumination color setting output (GREEN/AMBER)
52	SEIHIN	I	C	Model select input
53	ILMPW	O	C	ILMPW output
54	PBSENS	I	C	Parking sense input
55	SYSPW	O	C	SYSPW output
56	SELTIME	I	C	AVRGB switching time input
57	VSELIN1	I		VSEL input 1
58	VSELIN2	I	C	VSEL input 2
59	AVON	I	C	New AV display input
60	RESET	I		Reset
61	VSININ	I		Frame frequency 50/60Hz (VSINC) input

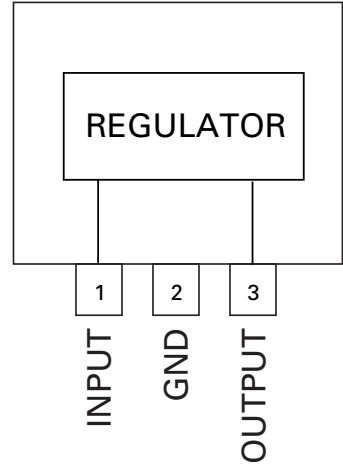
Pin No.	Pin Name	I/O	Format	Function and Operation
62	NC			Not used
63	DSENS	I	C	Detach input
64	REMIN	I	C	Remote controlling signal input
65	ASENS	I	C	ACC sensor input
66	BSENS	I	C	Backup input
67	NC			Not used
68	VDD			VDD
69	X2			Oscillator output
70	X1			Oscillator input
71	IC			Connection to grounding circuit
72	XT2			Sub-clock terminal
73	TESTIN	I		Test mode
74	AVDD	I		Analog power for A/D converter
75	AVREF0	I		Reference voltage input for A/D converter
76	LSENS		C	External light sensor input
77	KEYIN1		C	Key input 1
78	KEYIN2		C	Key input 2
79	KEYIN3		C	Key input 3
80	KEYIN4		C	Key input 4

*PE5230A

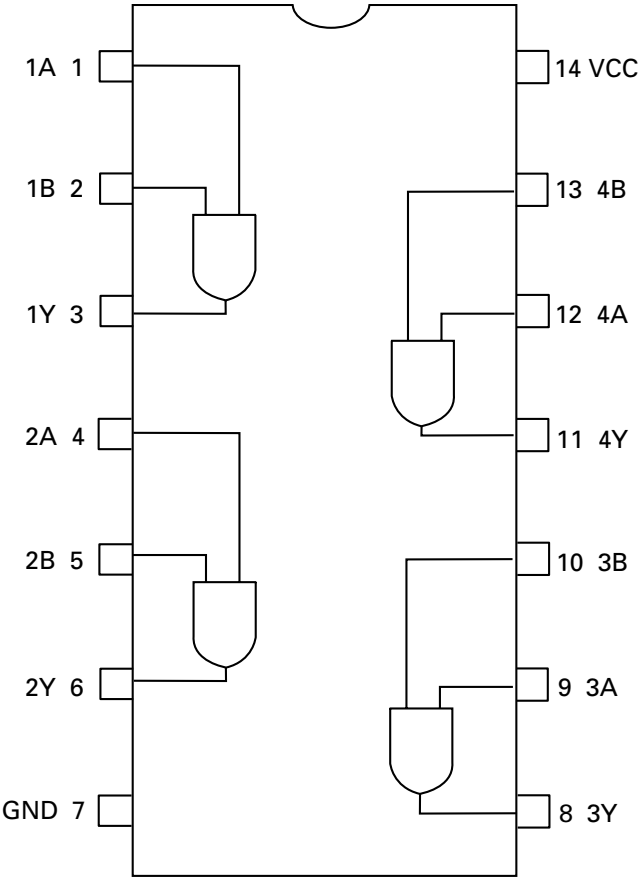


Format	Meaning
C	C MOS
N	N channel open drain

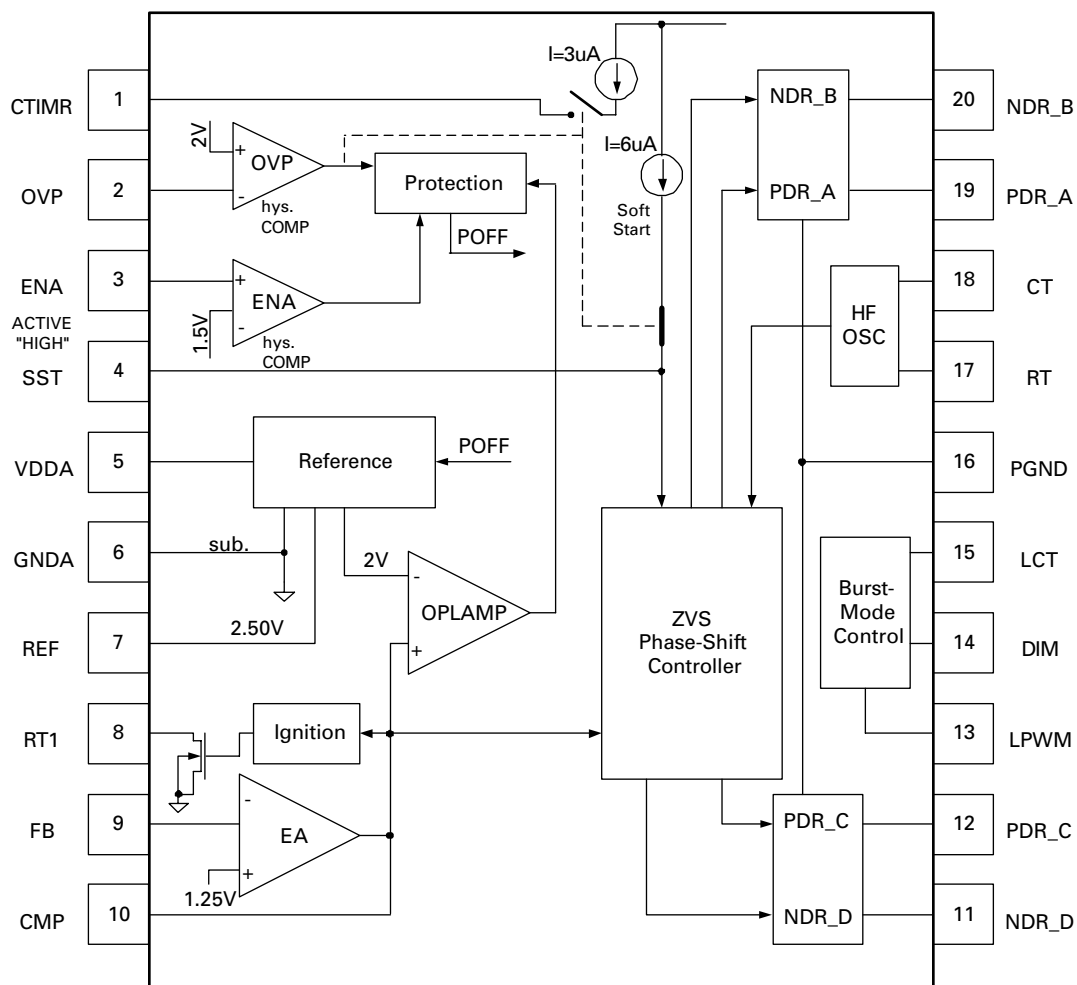
TA7806S



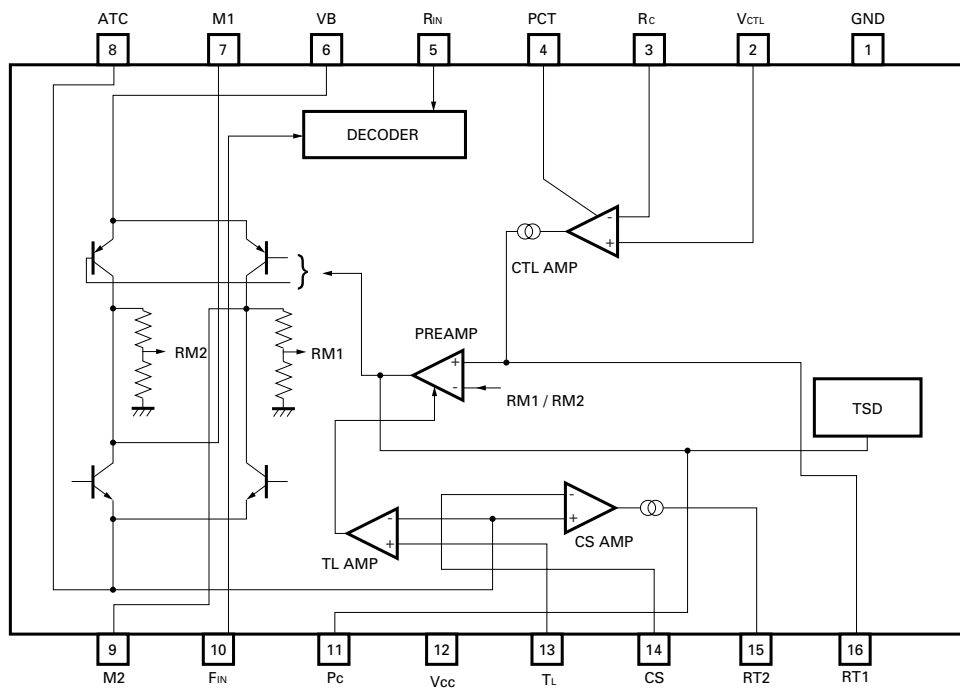
*TC74VHCT08AFT



*OZ960IS



BA6951FS



7.3 EXPLANATION

7.3.1 MECHANISM DESCRIPTION

● Outlines of the hardwares

- Driving Motor
 - The angular adjustment and monitor ejection control (position and angle) motor
- Sensors
 - Photo interrupter for angular detection *2
 - Zero angle detection switch (L when the angle is 0 degrees)

● Electrical criteria

- Sensor signals
 - Encoder pulse
 - DEGPUL1 : Pulse sensor 1 for angular detection
 - DEGPUL2 : Pulse sensor 2 for angular detection
- Sensor signals
 - DEG0SW : monitor angle detection is 0 degrees
- Control signals
 - MTRPW : Motor electrical power supply control (H when turned ON)
 - MTR1 : Motor control signal 1
 - MTR2 : Motor control signal 2

	Forward rotation	Reverse rotation	Brake	Standby
MTR1	H	L	H	L
MTR2	L	H	H	L

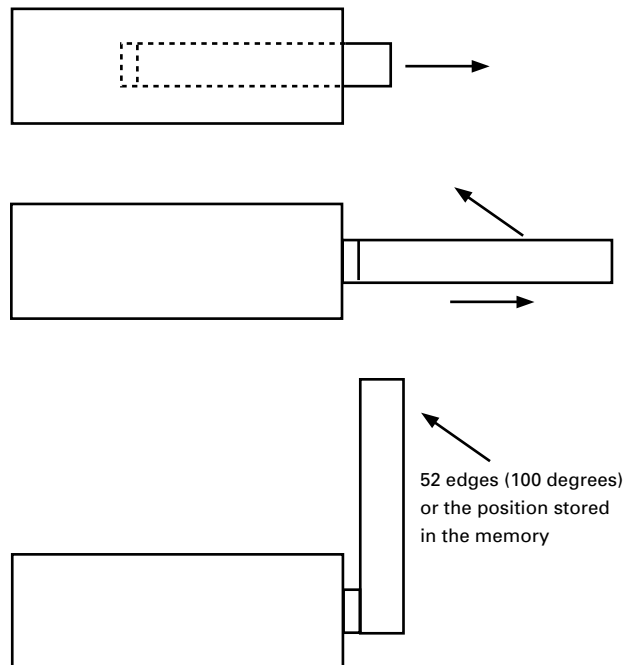
- Motor terminal voltages (set by hardware settings)
 - * The voltage required to sustain a constant rotation rate.
 - High-speed mode : VMH = 6.5 – 10.0V
 - Low-speed mode : VML = 2.5 – 5.5V

● Operation Summary

- The back and forth movements, as well as the angular adjustment controls of the monitor are all driven by the operation of one motor.
- In order to detect the startup angle of the motor, the photo interrupter will detect and count the pulse.
- For a reset start, the retraction operation is performed first followed by the ejection operation resulting in a mounted condition (the angle of the monitor in a mounted condition is 100 degrees).
- Angular adjustments are performed by using the ANGLE +/- keys (the ANGLE +/- keys are effective for adjusting angles, between 55 and 110 degrees in 28 increments).
 - * With its origin at the point where the DEG0SW switches from H to L,, it is 30 edges to the 55 degree position, and 57 edges to the 110 degree position.
- The monitor retraction operation is triggered by pressing the OPEN/CLOSE key (or when the ACC OFF state is attained when the automatic ejection and retraction setting is set to ON) (or if the ACC OFF key is pressed when the system is in the automatic ejection and retraction setting).
- The back and forth movements are set to a high-speed mode and angular control is set to a low-speed mode, at all times (switch is set by the hardware).
- Braking is continuous even after the motor has stopped.
- The brake is applied once when the motor switches from one operating mode to another.

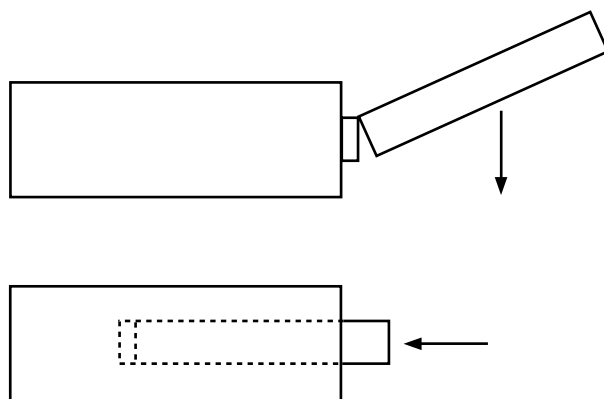
● Ejection Operation

1. When the OPEN/CLOSE key is pressed or when the ACC is turned ON, the motor is driven in a high-speed mode.
2. The motor is driven in a low-speed mode, when the DEG0SW is switched from L to H.
3. The counting of angular pulses starts from a point where the DEG0SW is switched from L to H, and the motor will stop when 52 edges (100 degrees), of the angular pulse is counted (brake mode).
If a previous angle has been stored in the memory however, the motor will continue to operate until that angle has been attained. 54 edges (100 degrees) or the position stored in the memory



● Retraction Operation

1. The motor is driven in a low-speed mode when the OPEN/CLOSE key is pressed or after six seconds when an ACC OFF state is attained (when the automatic ejection and retraction setting is set to ON).
2. The motor is driven in a high-speed mode when the DEG0SW switches from H to L. The motor operation is brought to a halt when the angular pulse cannot be detected for a period of 500 ms (brake mode).

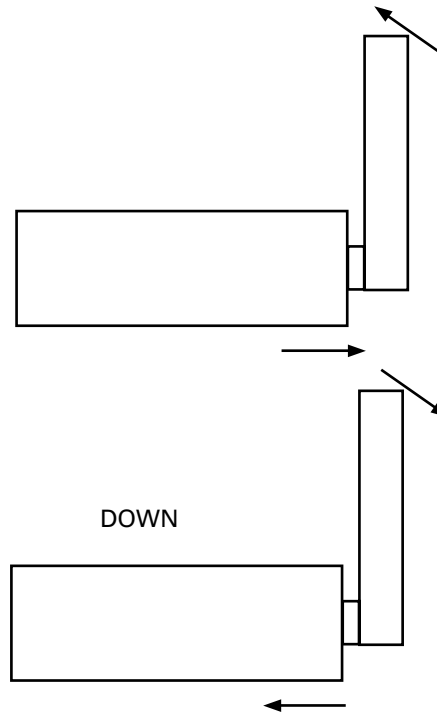


● Angular adjustments

1. When the UP key is pressed, the monitor is raised from its initial position (100 degrees), and will continue to rise until the key is released. The operation will stop one pulse after the release of the UP key.
2. The DOWN key operation results in similar motions.

● Protective Operation

1. During the horizontal ejection of the monitor, when the angular pulse cannot be detected for a period of 500ms, the retraction operation will be triggered.
2. During the startup (or angling down) of the motor, when the angular pulse cannot be detected for a period of 500ms, the brake mode will be triggered.
3. During the horizontal retraction of the monitor, when the angular pulse cannot be detected for a period of 500ms, the brake mode will be triggered.



● DISPLAY SECTION MECHANICAL OPERATION SPECIFICATION

● Direction of rotation

Forward rotation (ejection):

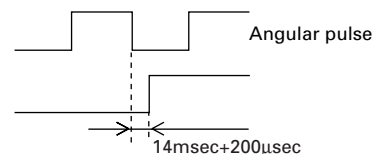
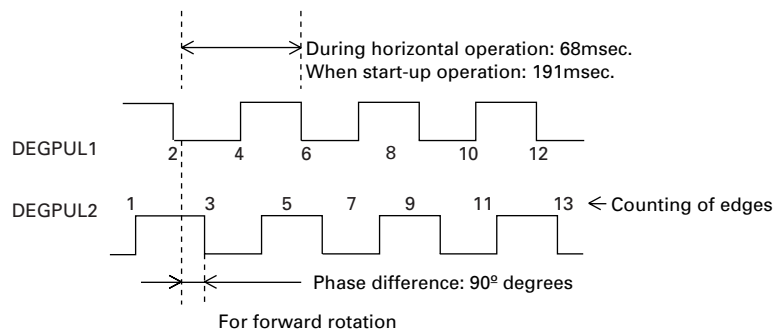
The phase of DEGPUL1 advances by 90 degrees.

Reverse rotation (retraction)

The phase of DEGPUL1 loses by 90 degrees.

● Cautions

1. The angular position is continuously incremented, with the last position stored in the memory for use when the system is turned on again. However, when the display is forcibly moved by the hand etc., the position is not memorized.
2. If a specified pulse is not detected during an operation, it is determined that an operational abnormality exists, and the operation will be halted at that point.
3. The brake operation is performed at 14ms + 200ms (← time required for monitoring the chattering) after the prescribed L angular pulses are detected.



● Operations of the drive section for each set mode

Mode setting

Automatic ejection and retraction setting: ON

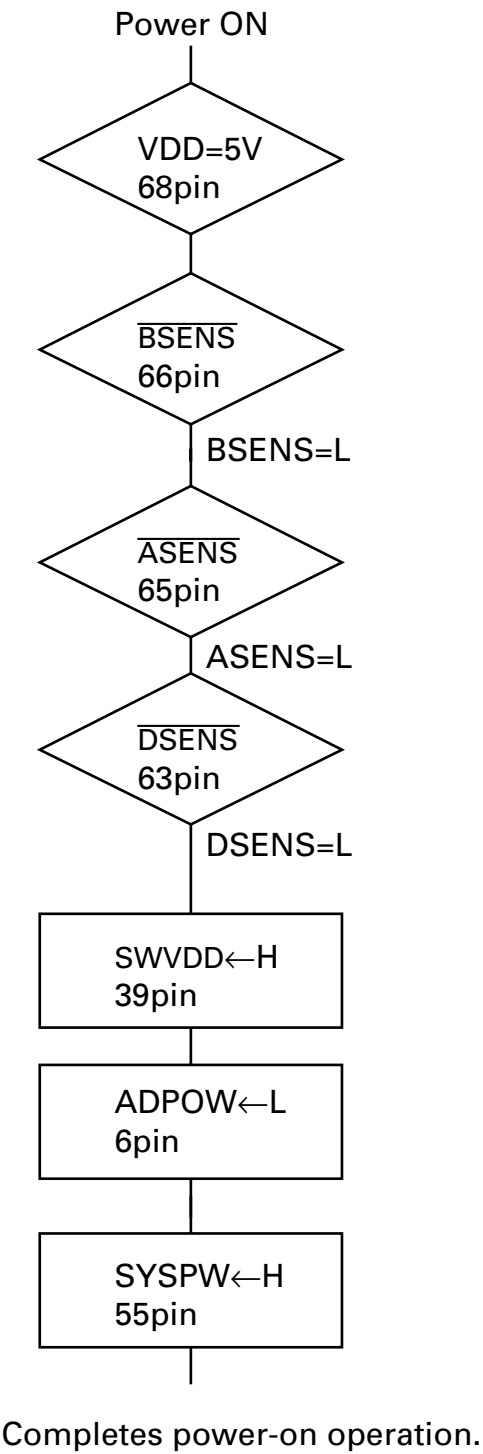
ACC operation mode	In OPEN condition or when in ACC OFF condition	During OPEN operation or when in ACC OFF condition	During CLOSE operation or when in ACC OFF condition	In CLOSE condition or when in ACC OFF condition
ACC OFF→ON	In OPEN condition ↓ Remaining in OPEN condition	—	—	In CLOSE condition ↓ OPEN operation ↓ Reverse operation
ACC ON→OFF	In OPEN condition ↓ ↓ 6 sec Forward operation ↓ CLOSE	Continued OPEN operation ↓ Reverse operation ↓ 6 sec Continued OPEN operation ↓ CLOSE	Continued CLOSE operation ↓ CLOSE	In CLOSE condition ↓ ↓ Remaining in CLOSE condition
Final position memory	OPEN	OPEN	CLOSE	CLOSE

Mode setting

Automatic ejection and retraction setting: OFF

ACC operation mode	In OPEN condition or when in ACC OFF condition	During OPEN operation or when in ACC OFF condition	During CLOSE operation or when in ACC OFF condition	In CLOSE condition or when in ACC OFF condition
ACC OFF→ON	In OPEN condition ↓ Remaining in OPEN condition	—	—	In CLOSE condition ↓ Remaining in CLOSE condition
ACC ON→OFF	In OPEN condition ↓ ↓ Remaining in OPEN condition	Continued OPEN operation ↓ ↓ Reverse operation	Continued CLOSE operation ↓ ↓ CLOSE	CLOSE condition ↓ ↓ Remaining in CLOSE condition
Final position memory	OPEN	OPEN	CLOSE	CLOSE

7.3.2 OPERATIONAL FLOW CHART

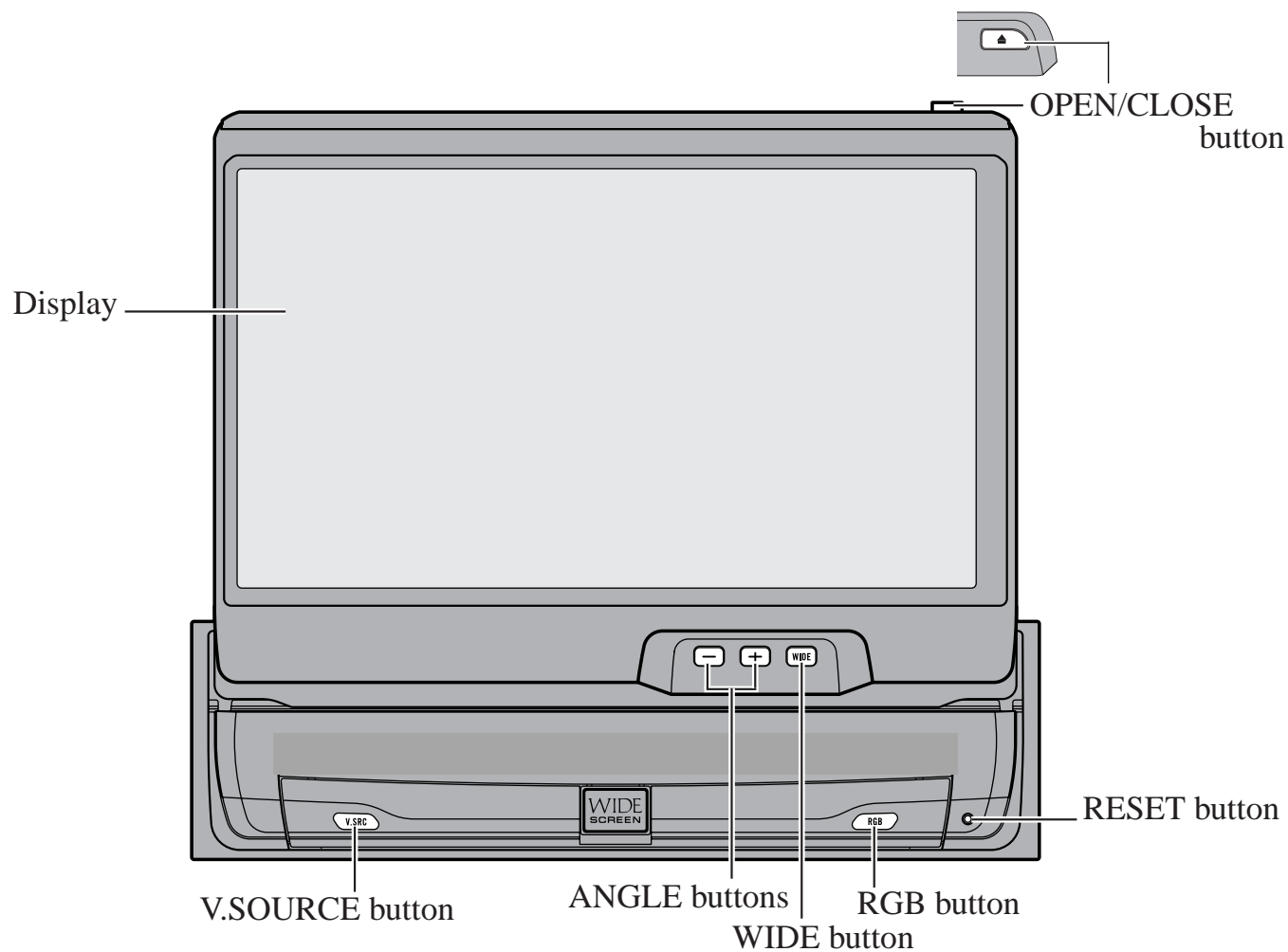


8. OPERATIONS AND SPECIFICATIONS

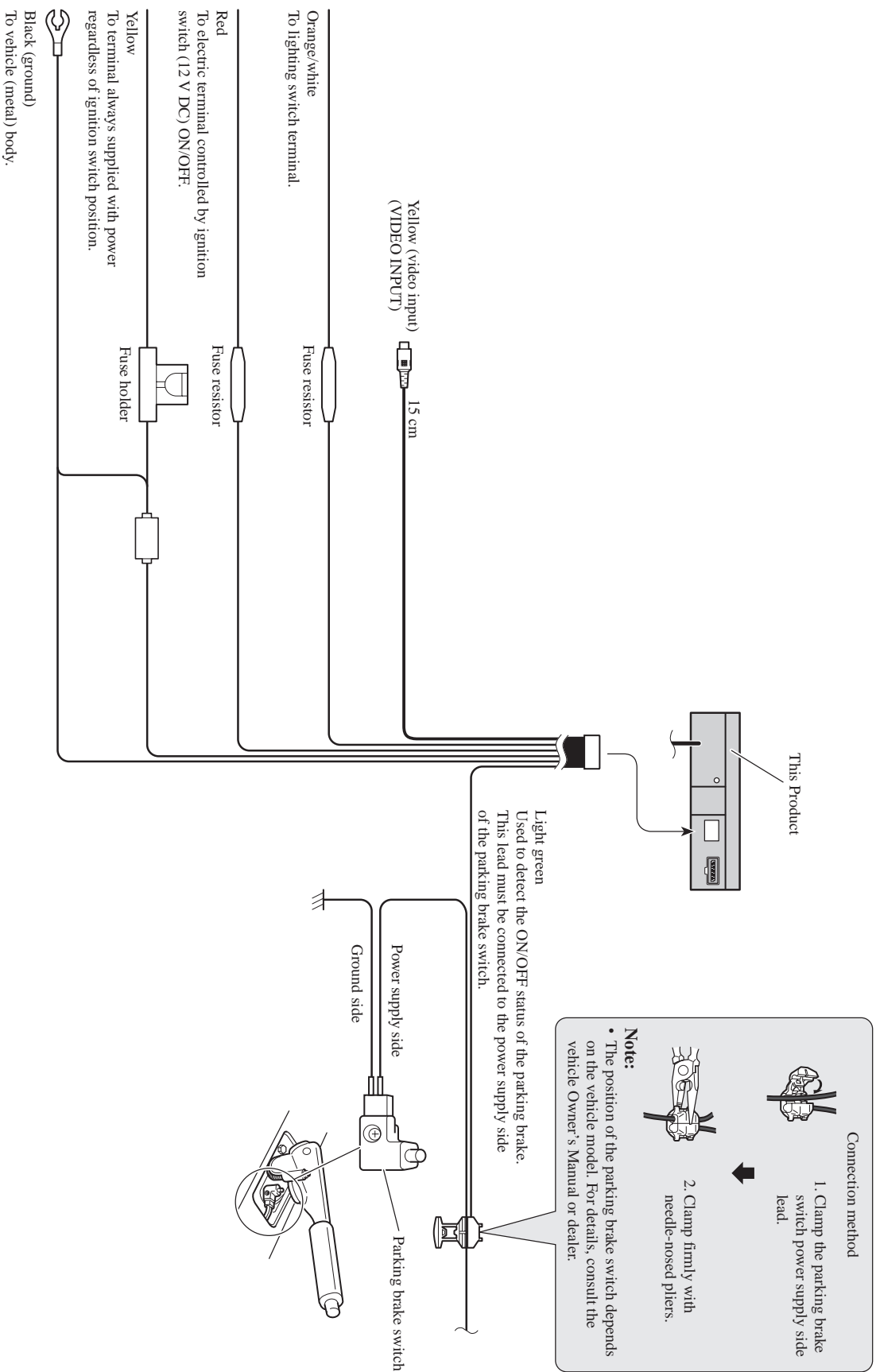
8.1 OPERATIONS

Key Finder

The following diagram shows the display when it is deployed.



● CONNECTION DIAGRAM



8.2 SPECIFICATIONS

General

Power source	14.4 V DC (10.8 – 15.1 V allowable)
Grounding system	Negative type
Max. current consumption	4 A
Backup current	Less than 5 mA
Dimensions	
(DIN)	
(chassis)	180 (W) × 50 (H) × 160 (D) mm
	[7-1/8 (W) × 2 (H) × 6-1/4 (D) in]
(nose)	188 (W) × 58 (H) × 31 (D) mm
	[7-3/8 (W) × 2-1/4 (H) × 1-1/4 (D) in]
(D)	
(chassis)	178 (W) × 50 (H) × 165 (D) mm
	[7 (W) × 2 (H) × 6-1/2 (D) in]
(nose)	170 (W) × 46 (H) × 26 (D) mm
	[6-3/4 (W) × 1-3/4 (H) × 1 (D) in]
(display)	169 (W) × 125 (H) × 16 (D) mm
	[6-5/8 (W) × 4-7/8 (H) × 5/8 (D) in]
Weight	1.5 kg (3.3 lbs)

Display

Screen size/Aspect ratio	7 inch wide/16:9
	(effective display area: 154 × 87 mm)
Pixels	336,960 (1,440 × 234)
Type	TFT active matrix, transmissive type
Color system [For U.S. and Canadian models]	
	NTSC Compatible
Color system [Other area models]	
	NTSC/PAL Compatible
Operating temperature range	–20 to +60° C
Storage temperature range	–40 to +85° C
Angle Adjustment	55 — 110°
	Initial setting angle: 100°

Note:

- Specifications and the design are subject to possible modification without notice due to improvements.